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THE AMERICAN 166
HOUSEHOLD ADVISER

AN EVER READY GUIDE

FOR THE

WANTS OF THE FAMILY.

Arranged in Four Distinct Parts.

PART I.—MEDICAL DEPARTMENT.

PART II.—RECEIPT DEPARTMENT.

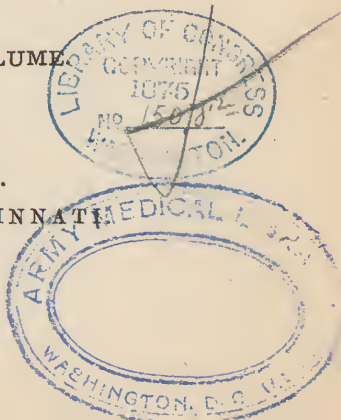
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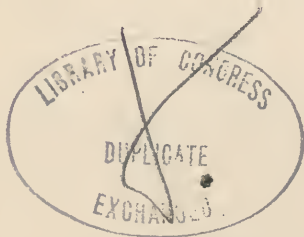
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THE
FAMILY DOCTOR:

CONTAINING
A DESCRIPTION OF

THE PRINCIPAL DISEASES

TO WHICH MOST PERSONS IN THIS COUNTRY ARE LIABLE,
TOGETHER WITH

THEIR TREATMENT AND CURE,

SIMPLIFIED SO THAT

EVERY MAN CAN BE HIS OWN DOCTOR,

TO WHICH IS APPENDED

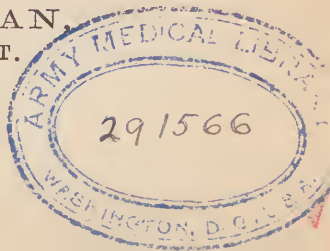
A DISPENSATORY

OF

AMERICAN BOTANICAL MEDICINES.

BY S. REMINGTON, M. D.

NEW YORK:
E. C. BRIDGMAN,
5 BARCLAY STREET.



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1875

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INTRODUCTION

IN preparing a Family Medical Adviser, for popular use, so that persons unacquainted with the terms and technicalities of the medical profession may avail themselves of the information which it conveys, and apply the remedies which it prescribes, it has been the business of the author of this work to simplify his description of disease, its treatment and remedy, so that any person who can read the English language, may understand it.

In the medical profession, the most simple remedies are sometimes designated by very long, hard names. Instance: Hydrargyri chloridum mite; sub. murias hydragyri mitis; calomelas sublimatum. All these big words mean nothing more nor less than the single word *calomet.* Again: Peppermint is an herb which every child knows by its name, but physicians call it "*menthæ piperitæ herba.*" Orange peel is an equally familiar name to every body, yet the doctors call it "*aurantii cortex.*" Should the doctor write a receipt with brown sugar as an ingredient, he would probably call it "*saccharum non purificatum.*" I will now write a receipt:

R.—Extractum glycyrrhizæ, ʒj
Aqua pulegii, f. ʒj.

drachm of the extract of liquorice, one ounce of pennyroyal water, and three ounces of pure water, mixed. The reader will perceive that all this great display of words is made for next to nothing; and could he translate all the receipts sent to the apothecary, (for the writing of each the patient is charged fifty cents,) he would find among them many of no greater value than the one I have just written.

I would not disparage the profession; but I would undeceive such as are made to believe that skill lies in being able to use the Latin terms, in which the various medicines the doctors prescribe are known in their books.

A medical work calculated to afford much instruction about disease, its prevention, and its cure, can be written so that persons with only a common education, and an ordinary share of common sense, may understand it; and in vast many cases not only save themselves the expense of a physician, but by appropriate timely remedies prevent themselves, or their families, from severe fits of sickness, which would weaken their constitutions or terminate prematurely their earthly existence.

Such a work as this the writer flatters himself is to be found in this little volume; and should it be carefully read, and when necessary consulted, and judiciously followed, though it may not prevent the necessity of calling a physician occasionally, yet it will save that trouble and expense frequently. And where families reside at a great distance from a physician, it is almost indispensably necessary that they be able at times to doctor themselves and their families, in all common attacks of disease.

In preparing these sheets, the writer, in connection with his own knowledge and experience, has availed himself of, he thinks, at least, some of the best helps within his reach. From Dr. Whitney's "Guide to Health," for its common sense and practical utility, he has derived much help, both in the theory and practice of medicine, and also from the A. Botanic Dispensatory.

The great object at which the author has aimed in compiling this work, is utility, rather than originality. And having received a medical education himself, and withal some experience in the practice of the healing art, he flatters himself that he is somewhat prepared to select the good, from those whose practical knowledge has been extensive in the profession, and to offer to the public a work adapted to general usefulness, as a family medical adviser.

He would also add, that in preparing this book he has had three important things in view :—1st. The prevention of disease ; 2d. The arrest of disease, when threatened by it ; and 3d. The cure of disease, when once it fully fastens upon the patient.

By following out the directions furnished in this volume, the Author feels confident that much success will attend, with regard to the 1st and 2d, without any further medical advice ; but as for the 3d, he cannot speak so confidently, because it is not so easy a matter to cure disease as many imagine ; many get well under the hands of physicians who are not cured ; but they recover in spite of their doctors—and yet the doctors get the credit of curing them. Still the Author would say, when once a dangerous disease fastens upon you, do not attempt to be your own physician

but send for the most skillful medical man you can find

Safety lies in not allowing the disease to progress thus far. "*A stitch in time saves nine*," is a common and true proverb. A dose of medicine, when threatened with disease, and a little careful nursing for a day, is the "*stitch in time*." Or equally important is it to take such care of ourselves, as to diet, exercise, &c., &c., as will tend to prevent even an exposure to disease.

In order to this in some sense, though every man may have his medical adviser, yet he should be his own doctor; and with a little observation and study he may acquire a sufficient amount of knowledge of his own constitution, and the means by which his health may be promoted, as to be able to prescribe for himself, as correctly and skilfully as his medical adviser would, if he were called—at least in all ordinary cases of indisposition.

THE AUTHOR

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FAMILY PHYSICIAN.

Plain Rules to be observed with regard to Regimen.

Rule I.

Persons whose muscles are weak and relaxed, ought to avoid all such things as are difficult of digestion. Their diet, however, should to be nourishing; and they should take sufficient exercise in the open air.

Rule II.

Such as are very full of blood should be sparing in the use of every thing that is very nourishing,—as fat meat, rich wines, strong ales, and such like. Their food should consist chiefly of bread, and other vegetable substances; and their drink ought to be water, buttermilk, or small beer.

Rule III.

Fat people should not eat freely of oily, nourishing diet. Their drink should be water, principally; if tea and coffee at all, very sparingly. They ought to take much exercise and little sleep. Those who are too lean may follow an opposite course, if their digestive organs will permit.

Rule IV.

Such as are troubled with acidities, or whose food is apt to sour on their stomach, should live much on animal food; and those who are afflicted with hot alkaline eructations, ought to use a diet consisting chiefly of acid vegetables.

Rule V.

People who are afflicted with gout, hypochondriac or hysteric disorders, ought to avoid all food that produces

wind in the stomach, every thing that is hard of digestion, all salted or smoke-dried provisions, and whatever is hard, acid, or apt to turn sour upon the stomach. Their food should be light, spare, cool, and of an opening nature.

Rule VI.

The diet ought not only to be suited to the age and constitution, but also to the manner of life ; a sedentary or studious person should live more sparingly than one who labors hard out of doors. Many kinds of food will nourish a farmer very well, which would prove almost indigestible to a citizen ; and the latter would live upon a diet on which the former would starve.

Rule VII.

Diet ought not to be too uniform. The constant use of one kind of food might have some bad effects. Nature teaches us this, by the great variety of food which she has provided for man, and likewise by giving him an appetite for different kinds of food.

Rule VIII.

Those who labor under any particular disease, ought to regulate their diet accordingly. For example, a gouty person should not indulge in rich wines, strong soups or gravies, and should avoid all acids. One who is troubled with gravel ought to shun all sour and astringent aliments ; and those who are affected with a diseased skin should be sparing in the use of oily and salted provisions.

Rule IX.

It has always been an established rule, with respect to diet, that the softer and milder kinds of food are best adapted for children, and young subjects generally ; that for grown up people the more substantial is necessary ; and, with regard to old people, they should gradually, as they advance towards their climax, lessen the quantity of solid food, while they increase that of the lighter kind, with more drink. This, however should be done very gradually.

Rule X.

It is not only necessary for health that our diet be wholesome, but also that it be taken at regular periods. Some imagine that long fasting will atone for excess; but this, instead of mending the matter, generally makes it worse. When the stomach and intestines are over distended with food, they lose their proper tone; and by long fasting they become weak and inflated with wind. Thus, either gluttony or fasting destroys the powers of digestion. Fasting is extremely hurtful to the young; it vitiates their humors, and prevents their growth; it is also dangerous for the aged. Old people, when their stomachs are empty, are frequently seized with a giddiness, headache, and faintness. These complaints may generally be removed by a piece of bread and a glass of wine, or taking any other solid food; which plainly points out the method of preventing them. It is more than probable that many of the sudden deaths which happen in the advanced periods of life, are occasioned by fasting too long, as it exhausts the spirits and fills the bowels with wind; persons, therefore, in the decline of life, never ought to allow their stomachs to be too long empty.

Rule XI.

When we recommend regularity in diet, we would not be understood as condemning every small deviation from it. It is next to impossible for people at all times to avoid some degree of excess; and living too much by rule might make even the smallest deviation dangerous. It may therefore be prudent to vary a little, sometimes taking more, sometimes less, than the usual quantity of meat and drink; provided, always, that a due regard be had to moderation.

Rule XII.

It is a very common practice to eat a light breakfast and a hearty supper. This custom ought to be reversed. When people sup late their supper should be very light; but the breakfast ought always to be solid. If any one eats a light supper, goes soon to bed, and rises by times in the morning, he will be sure to find an appetite for his breakfast, and he may freely indulge it.

Healthy and Proper Regimen for the Sick during the various Stages of Disease.

Beef Tea.

Cut a pound of good beef into thin slices; simmer it with a quart of water twenty minutes; after it has once boiled and been skimmed, season it if you wish, and add a little salt.

Mutton Custard for a Cough.

Into a pint of good skimmed milk shred two ounces of fresh mutton suet; let it come to a boil, and then simmer gently for an hour, stirring it now and then. Strain, and take it at bed time. It is excellent for a tight cough.

Broth.

Take two pounds of lean beef, five quarts of water, simmered down to three quarts; add half cup of rice and a little salt. Veal or mutton prepared the same way.

Rice Caudle.

Mix some ground rice smooth with a little cold water, then put it into boiling water; when it becomes sufficiently thick, add a bit of lemon peel or cinnamon, and sugar to taste.

Gruel.

Take one cracker and pound it fine; then pour one pint of boiling water to it, and a little sugar and salt. Grate some nutmeg upon it.

Milk Porridge.

Put a quart of water in a kettle, adding a little salt, and while heating, mix a gill of flour in a bowl of water, made thick, and when the water is boiling hot, drop this into it with a spoon; let it be well boiled, then add half a pint of milk.

Eggs.

Weak persons may take eggs in the following manner: Beat an egg very fine, add some sugar and nutmeg, pour upon it a gill of boiling water, and drink it immediately.

Panada.

Put a blade of mace, some crumbs of bread, and a quart of water, in a clean sauce-pan. Let it boil two minutes; then take out the bread, and mash it very fine in a basin. Mix with it as much of the warm water as it will require, and sweeten it to the taste of the patient.

Note.—Butter may be added, in a piece the size of a walnut, instead of wine. Raisins may be added, and nutmeg, if desired.

Isinglass Jelly.

Put an ounce of isinglass and half an ounce of cloves into a quart of water. Boil it down to a pint; strain it upon a pound of loaf sugar, and when cold, add a little wine, when it will be fit for use.

Note.—This is too rich, where there is much fever.

Another.

A very nourishing beverage may be made by merely boiling the isinglass with the same amount of water or milk as directed above, and sweetening with lump sugar.

Currant Jelly.

Take the juice of red currants 1 lb., sugar 6 oz. Boil down.

Another method.

Take the juice of red currants, and add white sugar, equal quantities. Stir it gently and smoothly three hours. Put it into glasses, and in three days it will concrete into a firm jelly.

Arrow-Root Jelly.

Boil a pint of water, in which mix by degrees a table-spoonful of arrow-root; let it boil a few minutes, adding a glassful of sherry or a spoonful or two of brandy, grated nutmeg, and sugar. This is very nourishing for those whose digestive organs are weak.

The Pulse.

The pulse is simply the beating of an artery; its strength and velocity vary in different persons of equal health. It is more frequent in children than in adults;

and in old men it is more slow and feeble. About seventy pulsations to the minute indicates a firm constitution, and a good state of health.

Four Rules to be Remembered.

Rule I.

In all complaints whatever, where you find the pulse quick, hard, full, and strong, foul tongue, hot skin, and headache, or other symptoms of an inflammatory character, the proper course is to reduce it, by a dose of physic, thorough sweat, poultices upon the feet, and abstinence from food. Sometimes it will be necessary to first administer an emetic.

Rule II.

If, on the other hand, the pulse be found small, soft, feeble, and intermitting, dark tongue, and general languor, the whole plan must be changed. Let the food be generous and nourishing, and the strength be sustained by the use of barks and other mild tonics; a little pure wine may be safely indulged.

Rule III.

Let the apartments of the sick be kept well ventilated. Fresh air is an important remedial agent in all diseases; but be sure always to avoid a current of air. This last remark as much concerns the well as the sick.

Rule IV.

By observing carefully the effect of the various articles of food upon your own health, you will soon learn what is best adapted to your nature. always choose that which experience has proved to be the best for you.

The doses mentioned in this book are generally intended for adults.

Children of 14 years,	may take	two-thirds	of a dose
" 7 "	" "	"	one-half.
" 5 "	" "	"	one-third.
" 3 "	" "	"	one-fourth.
" 28 months,	" "	"	one-fifth.
" 14 "	" "	"	one-eighth.
" 7 "	" "	"	one-twelfth.
" 2 "	" "	"	one-fifteenth.
" 1 "	" "	"	one-twentieth.
" under 1 "	" "	"	one-twenty-fourth.

To measure Medicine instead of weighing.

A drachm of any substance that is near the weight of water, will fill a common tea-spoon level full. Four tea-spoonsful make a table-spoonful, or one-half of an ounce. Two table-spoonsful, an ounce, and so on. On the same principle, one-third of a tea-spoonful will be one scruple, or twenty grains in weight.

List of Simples, to keep on hand for family use.

Senna—Dose : a table-spoonful of the leaves steeped, for a child.

Hot Drops—Dose : 20 drops in water, for a child.

Sweet Tincture of Rhubarb—Dose : from a tea-spoonful to a table-spoonful for a child.

Pennyroyal—For colds.

Red Raspberry Leaves—For canker, dysentery, &c.

White Lily Root—For canker, &c.

Slippery Elm—For poultices, and for a drink.

Mullen Leaves—For poultices and fomentations.

Avens Root—An astringent and tonic.

Castor Oil—Dose : for an adult, a table-spoonful ; for a child, a tea-spoonful.

Camphor—Dose : a tea-spoonful.

Composition—Dose : a tea-spoonful.

Crane's Bill—For canker.

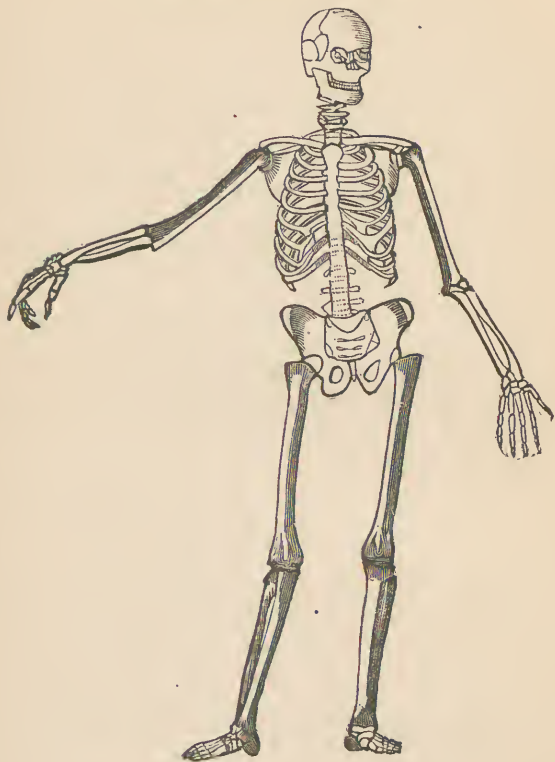
Paregoric—Dose for a child, 5 to 20 drops.

Lobelia, or Blood-Root Tincture—Dose : a tea-spoonful for an adult.

Wormwood—For bruises and worms.

Boneset—A tea for colds &c.

Anatomy and Physiology.



The parts of the human body have been distinguished into *solids* and *fluids*. The bones, cartilages, ligaments, muscles, tendons, membranes, nerves, arteries, veins, hair, nails, and ducts, (or fine tubular vessels of various kinds,) are the *solid* parts of the body. The blood, bile, milk, lymph, &c. are the *fluid* parts.

The bones are the bases or prop-work of the human system. They give form and strength to the

body, and keep it from sinking under its own weight. They number 248. There is sometimes some variation in their number, as there are more or less very small and unimportant bones found about the joints of the thumb and great toe; eight of these are reckoned in the above enumeration; they are called *sesamoid bones*.

The bones are composed of animal earth and gluten; and they not only support and form the stature of the body, but defend its *viscera*, (which is the heart, lungs, liver, &c.), and give adhesion to the muscles.

The bones are formed by a specific action of small arteries which separate the bony matter from the blood, and deposit it where required; consequently the bones of the child are very imperfect.

The bones are shaped to suit the situation they occupy, and the respective functions they have to perform. Some are *hollow*, and filled with marrow; others are solid throughout; some are very *small*, others very *large*; some are *round*, and others *flat*; some are *plain*, and others *convex* or *concave*. So also the joints: they vary according to their respective uses: some are *hinge-joints*; others are *swivel*; and again others are so constructed as to partake of both the hinge and the swivel motion.

The bones being the bases of the attachment of the muscles, the muscular system is the next in order. This system constitutes the fleshy part of the human body. They are of various forms: some long and round; some plain and circular; some spiral, and some have straight fibres; some few are double, and some are even treble. While they give to the body that varied and beautiful form we observe over all its surface, their principal design is to serve as the organs of motion. Their extremities, by which they are inserted into the different bones of the body, are strong and tendinous; and, as the muscles contract or distend, are the various movements of the human body.

There have been dissected and described between four and five hundred muscles in the human body—one hundred of which every time we breathe are employed. “Breathing with ease,” says Dr. Paley, “is a blessing

of every moment; yet, of all others, it is that which we possess with the least consciousness. A man in an asthma is the only man who knows how to estimate it."

There are two great systems of blood-vessels in the human body—the veins and the arteries. The veins carry the blood to the heart, and the arteries convey it from the heart to supply the various parts of the system. The blood which is in the veins is black, and unfit for use in nourishing the body, until it enters the vessels of the lungs, and comes in contact with the air which we inhale by respiration, the oxygen portion of which converts it into arterial blood, when it becomes red, and is then conveyed by the arteries to support and nourish the body. Hence in the circulation of the blood through the body, there is a circle described in its current—the heart being the great machine by which the circulation is kept up. The heart is a hollow muscular organ. It is double—having two *auricles* and two *ventricles*. The *auricles* receive the blood from the veins, and the *ventricles* send out the blood to the arteries. When the heart contracts, the blood is propelled from the right ventricle into the lungs, through the pulmonary arteries, which, like all the other arteries, are furnished with valves that play easily forward, but admit not the blood to return toward the heart. The blood, after circulating through the lungs, and having there been revived by coming in contact with the air, and imbibing a portion of the oxygen, returns into the left auricle of the heart by the pulmonary veins. At the same instant the left ventricle drives the blood into the aorta—a large artery which sends off branches to supply the head and arms. Another large branch of the aorta descends along the inside of the back bone, and detaches numerous ramifications to nourish the bowels and inferior extremities. After serving the most remote extremities of the body the arteries are converted into veins, which, in their return to the heart, gradually unite into larger branches, until the whole terminate in one great trunk called the *vena cava*, which discharges itself into the *right auricle* of the heart, and completes the circulation. Each ventricle of the heart is reckoned to contain about an ounce

(or two table-spoonsful) of blood. The heart contracts 4000 times every hour—and, consequently, there passes through it 250 pounds of blood every hour. If the mass of blood in a human body be reckoned at an average of 25 pounds, it will follow that the whole mass of blood passes through the heart, and, consequently, through the thousands of ramifications of the veins and arteries, 14 times every hour, or about once every four minutes.

The healthy functions of the lungs, and the purity of the air which we inhale, give character to the life-blood of the human system. "It has been computed," says a learned author, "that the lungs on an average contain about 280 cubic inches, or about 5 quarts, of air. At each inspiration, about 40 cubic inches of air are received into the lungs, and the same quantity discharged at each expiration." It is therefore of the utmost importance to health that we have plenty of fresh air, and that the lungs perform their functions healthily.

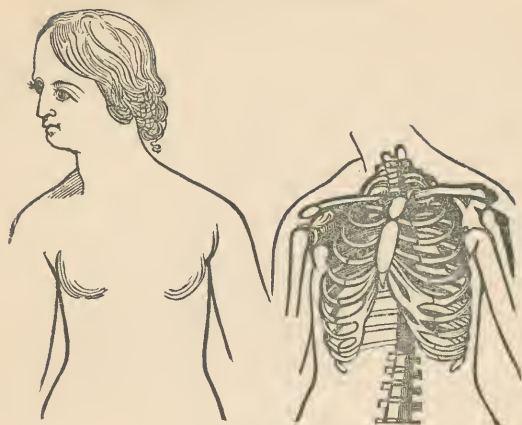
The liver and stomach are also organs of immediate importance to health and life. If they be not healthy, digestion will be retarded, and the system not receive its appropriate nourishment. They both act in concert, as appears from the process of digestion. The food, after being masticated by the teeth and moistened by the saliva, is received into the stomach, where it is still further diluted by gastric juice, which has the power of dissolving animal and vegetable substances. From this organ or sack it passes by an orifice into the second stomach, or *duodenum*. Here the functions of the liver are made necessary. The liver is upon the right side—the largest gland in the human body—and its office is to secrete bile. The gall-bladder is seated in the hollow side of the liver, and, by means of a duct, communicates with the second stomach, where, mixing the gall with the chyle conveyed from the stomach, it acts as natural physic to keep up a healthy action of the intestines, which carry off the crude portions of our food—portions unfit to nourish the system—while small vessels called lactyles take up the nutritious portion, and convey it to the mesenteric gland; from which it is received by a

duct into the blood, and made to contribute to supply the wastes of nature—while other portions of our food not carried off by the action of the intestines, or conveyed to the blood, as just described, pass off by insensible perspiration and the action of the kidneys. The glands of the skin which cover our bodies, are perforated with thousands of millions of pores, through which more than half of what we eat and drink pass off by sensible and insensible perspiration. The obstruction of these pores produces the most serious consequences. Hence rheumatisms, fevers, and other inflammatory disorders, often follow what are called colds, which cause a partial obstruction of these pores; for if they were completely obstructed, the vital functions would be clogged and impeded in their movements, and death would inevitably ensue: therefore the saying of a wise man—"A little cold is a little death; and a little more, fits us for the damps of the grave, and is death itself."

How to Preserve your Teeth.

If you would preserve your teeth, never set them on edge with acids; remove from them every particle of the tartar; clean them every day with a tooth-brush, taking care not to injure the enamel. If the front teeth are too close to each other, let them be separated, by filing with a very fine file the portions of teeth that are in contact—for every one knows that those persons whose teeth are wide apart, and kept clean, never complain of the tooth-ache. Filling or stopping the teeth with pure gold foil, before they are too much decayed, will save thousands of teeth which would otherwise have to be extracted.

Diseases of Children.

*Natural Figure.**Deformed Figure.*

Infant Nursing.—To set a child upright before the end of the month is hurtful; it should be laid on a thin mattress—which may be held on the lap at any time—in order that the child may always lie straight, and only sit up as the mattress is slanted. The clothing should

be very light—and rubbing its legs and whole body with a warm hand or flannel, will take off the scurf, make the blood circulate, and strengthen its limbs. To prevent the legs from being cramped and the toes from turning inwards, its legs should be kept loose, the position often changed, and kept as little in the arms as possible. Want of exercise is the cause of rickets, large heads, and weak joints; by slow degrees, therefore, the infant should be accustomed to exercise, both within doors and in the open air. He should be washed with warm water at first, and, making it colder by degrees, he will finally like to be washed with cold water.

After he is a month old, if he has no cough, fever, nor eruption, he may be gradually accustomed to the cool, and then to the cold bath as it comes from the fountain. This will render him hardy. In drying and rubbing the body, the utmost gentleness should be used, especially about the head and bowels. Squeezing the head or combing it roughly, may cause dreadful diseases, and even the loss of reason. Bandages round the head must not be used. Caps may be worn until the hair is sufficiently grown, but no longer. Pins ought never to be used in a child's clothes; every string should be so loose as to admit of two fingers between it and the part where it is fixed; and in dressing, the most tender deliberation should be observed.

The Sleep of Infants.

Infants cannot sleep too long; and to awaken them with a noise, or in a very impetuous manner, is extremely improper; and suddenly exposing them to a glaring light, lays a sure foundation for weak eyes.

Never administer spirits or drops to make the infant sleep, if it be possible to avoid it. Let their diet, as they grow, be simple—and the more simple, the better they will thrive.

The Bodily Habits of the two Sexes the same.

It is too much the case that parents, being anxious to accomplish their girls, imagine that they must be kept under a certain restraint. Boys are not laced—but poor girls

are compressed tight enough to suffocate them, in order to give them *an elegant shape!* The contrary effect, however, is always produced—for it is the sure way of making children round-shouldered and deformed.

The Yellow Gum.

It is known by a yellow tinge of the skin, with languor, and a tendency to sleep. To cure it, give a tea-spoonful of castor oil; keep the bowels open and regular, and in a few days it will pass off.

Aphthæ, or Thrush.

These are little whitish ulcers affecting the mouth, tongue, throat, and stomach. It is difficult to apply remedies in this disease to young children. The nurse may rub the child's mouth with a little borax and honey, to which a little burnt alum may be added sometimes, keeping the bowels open with magnesia.

Acidities.

The magnesia, given in food, purges, and at the same time corrects the acidity, and thus carries off the cause. Where there is griping, rub a little brandy or any spirit on the bowels, warm, before the fire. If any thing be given internally, let it be a little peppermint, anise, checkerberry, and the like.

Galling and Excoriation.

Wash the parts frequently with cold water, and sprinkle on some absorbent powder, as burnt hartshorn, chalk, or flesh powder. Washing the parts with water in which a little white vitriol has been dissolved, heals the sores very quick.

Vomiting.

When occasioned by too much food, promote the evacuation by an occasional tea-spoonful of lobelia tincture, or half a tea-spoonful of tincture of blood-root. When the food is of too acrid or irritating quality, it must be changed to that of a milder nature. Where this cannot be done, a little magnesia, soda, lime-water, or weak pearlash-water, may be given to neutralize the acidity.

Cholera Infantum.

This disease prevails during the summer, and attacks children from a week after birth until two or three years old. It is attended with vomiting—purging of green or yellow matter, of slime, or of blood—attended with pain, swelling of the belly, and heat of the skin, growing worse towards evening. It is generally attributed to hot weather, and is aggravated by teething, or excessive use of fruit.

In this disease the stomach and bowels must be evacuated, and afterwards give charcoal and magnesia, or the latter alone. When there is much irritability clysters of flaxseed tea, mutton broth, and starch, with a little laudanum in them, will give ease. Fomentations to the bowels and abdomen are useful. After the violence of the symptoms are over, give the Peruvian bark in powder or decoction, adding a little nutmeg. Or, use a tea of avens, or bayberry-root, or the leaves of red raspberry. The removal of children to the country—abstaining from fruit—the use of flannel and the cloth bath—are the means prescribed for prevention.

Hiccups.

Hiccups generally arise from a sour stomach, and may be cured by giving eight grains of prepared chalk mixed with two grains of rhubarb in a little gruel.

Griping and Flatulency.

Their presence is manifested by continual crying, restlessness, and drawing up the legs. When attended by diarrhoea and green stools, it is generally relieved by giving a few grains of rhubarb and magnesia; but if the pains are very great, take of prepared chalk, one scruple, tincture of caraway seeds, three drachms, compound spirit of lavender, one drachm, peppermint water, two ounces, laudanum, five or six drops; mix together and give two tea-spoonsful immediately, and as soon as the pain ceases, a cathartic of castor oil will be proper. The above-mentioned absorbent mixture may afterwards be continued occasionally in smaller doses, omitting the laudanum.

Diarrhœa.

If the stools are green, this will be relieved by a brisk purgative of one or two grains of calomel combined with four or five of rhubarb, according to the age of the child, and after its operation, the absorbent mixture may be given. If the stools are very frequent, slimy, or tinged with blood, it will then be proper to give five grains of rhubarb every four or six hours, and let the food be beef tea, sago, isinglass in milk, or calf's-foot jelly. The body should be wrapped in warm flannel, and a small blister may also be applied to the belly.

Cutaneous Eruptions.

All that can be done to advantage is to keep the bowels open, and to guard against cold, which might drive the eruption inwardly and occasion internal inflammation. If there should be any sickness and vomiting, give the absorbent mixture.

The Thrush.

The thrush makes its appearance by little ulcerations in the mouth, tongue, &c., of a white color, and sometimes of a yellow appearance. It is owing to acidity or sourness of the stomach, and nothing is better at first, than to give an emetic, and then a little magnesia and rhubarb, with weak chicken broth as drink. The absorbent mixture will also be proper, and if there is no looseness, give a grain or two of calomel with three or four of rhubarb; the mouth and throat in the mean time should be cleansed by gargles, such as sage tea sweetened with honey, alum water, or borax. The syrup of black currants may be given to children in the thrush, in the dose of a tea-spoonful at a time; it is made by dissolving 24 ounces of double refined sugar in one pint of the strained juice, and boiling down to a syrup.

Falling down of the Fundament.

Falling down of the fundament happens frequently to children who cry much, or have had a diarrhœa, or from straining on going to stool. If the child be costive, give mild clysters; and if the gut be swelled or inflamed,

foment with warm milk, or decoction of oak bark, or wash frequently with cold water. The parts are to be replaced by the finger, and supported by a truss, or bandage. The internal use of tonics will also be proper.

Dentition, or Cutting Teeth.

Leeches, or blisters, may be applied behind the ears. The gums ought to be divided crosswise by a lancet, or sharp knife, and any person can do it as well as a doctor. Instead of giving opium, laudanum, or paragoric it is better to administer calomel in small doses, for this will promote absorption. The bowels, if costive, should be kept regular by gentle physic, as oil, rhubarb, &c.; and if there is looseness, it should not be checked. Instead of anything hard, let the child nibble at a piece of wax candle.

Convulsions.

Children are liable to convulsions from teething, wearing tight clothes, small-pox, measles, &c. Bathing in warm water, with a mild clyster, will soon relieve them; and to make the fit still shorter, cold water may be poured over the face and neck while the rest of the body is in the warm bath.

The Rickets.

This disorder exhibits itself in the bones of children, and is generally caused by improper nursing. It usually appears about the eighth or ninth month, and continues to the sixth or seventh year. The head becomes large, and the bones continue separate for a long time; the countenance is full and florid; the joints knotty and distorted; the belly swells, and there is finally a cough and disorder of the lungs. The understanding is generally more forward than common. In this disease cold sea bathing is of great importance, after which the child should be rubbed and placed between two blankets to encourage perspiration. The back should be well rubbed with opodeldoc, or good old rum every night. A few grains of ipecac. or calomel may be given occasionally. Mineral water is beneficial, and so is a decoction of Peruvian bark with red

wine, used with moderation. Exercise in a dry, clear air should be encouraged; the diet should be light and well seasoned; and so far as it can be done without causing pain, the limbs should be kept in a proper situation by the use of some kind of bandage or instrument

Inward Fits.

These are known by the infant appearing as if asleep; the eyelids, however, are not quite closed, but frequently twinkle, and show the white turned upwards; the mouth sometimes has the appearance of a laugh or smile; the breath is either quick, or stops for a time; the eyelids and lips are pale and dark alternately. The infant startles on the least noise, and sighs deeply, or breaks wind. This relieves him for a little, but he soon relapses into a dose. Whenever these symptoms are noticed, the child may be awakened, and its back and belly should be well rubbed before the fire until wind escapes: at the same time two drops of the oil of anise or caraway may be given in some kind of drink; and as soon after as possible a purgative of castor oil, or a grain or two of calomel with two or three of rhubarb, is to be given to empty the bowels of whatever crude matter may have occasioned the disorder.

Distortion of the Spine.

In this affection, an ounce of prevention is worth more than all the cure that has ever been discovered. The child's back bone should be frequently and closely examined, and on the slightest appearance of any deformity, it is to be washed with brandy night and morning, and the child kept in a straight posture both sleeping and waking; cold bathing is also good.

Dropsy on the Brain, or Hydrocephalus.

Symptoms.

This affection of the brain occurs most frequently in children between three and six years of age. The beginning or first stage of the disease is marked by the same symptoms of fever as children frequently

have from teething, or from worms, or a foul stomach, or from disordered state of the bowels: such as loss of appetite, thirst, quick pulse, hot skin, disturbed sleep, melancholy, uneasiness, sickness at the stomach, and sometimes vomiting. The child is unwilling to be moved; the bowels are costive; the symptoms are worse towards evening, and better in the morning. The second stage at length sets in with pain in the head, which is known by the child throwing up his hands to his head and tossing them about. It is also attended with screaming, impatience of light and noise, and a redness of the corner and inside of the eyelids. The pupil or sight of the eye is contracted, that is, smaller than usual; the pain in the head sometimes extends to the arm and leg of one side. In the third stage the pulse becomes slow and intermitting; the pupil of the eye is dilated, that is, larger than what is natural, and it will not contract on the approach of a lighted candle; the screaming fits are more frequent, with moaning; vomiting will often take place on being raised up; the child becomes stupid, takes no notice of anything, and frequently dies in this stage. In the fourth stage, if life still continues, the pulse becomes quick again, but very feeble; the patient is no longer able to swallow, lies perfectly insensible, and the stools and urine are passed involuntarily. *Subsultus tendinum*, or twitching of the tendons, is now to be observed, and very often one eye, or the whole of one side, is perfectly paralytic or palsied.

Causes.

Those of a scrofulous habit of body are naturally predisposed to it; and hence it is that children sometimes inherit a predisposition to it from their parents. Others, however, are liable to it from falls, blows on the head, or from any cause that produces irritation of the brain. It is generally supposed that the serum or watery fluid is effused on the brain as a consequence of the inflammatory action existing there in the first and second stages of the disease.

Treatment.

In the first stage, the patient is sometimes cured; in the second, very seldom; in the third, almost never; in the fourth, never. Unless, therefore, it be attended to in the very beginning, medicine is of little avail, and the patient will generally die in about three weeks. The inflammation is to be subdued by bleeding, leeches or cupping to the head and temples, and a blister on the back of the neck. The bowels must be thoroughly cleansed by some active cathartic, as jalap. Ptyalism, or sore mouth, should then be attempted, by giving a grain or two of calomel once in an hour or two, until the gums begin to be sore, and the bowels are to be kept open by giving other physic if necessary. Digitalis or foxglove may be given during the fever, in the common dose for children (see dispensatory), in order to lessen the arterial action. After reducing the inflammation, the warm bath and diaphoretic medicines are proper. If the complaint should thus be happily arrested, the strength must be restored by nourishing food, and tonic medicines; taking care to keep the head cool, the bowels in good order, and a seton, or issue, should now be applied and continued for some time to the back of the neck.

Inflammation of the Trachea, Hives, Rattles, or Croup.*Croup.*

Croup is an inflammation of the trachea, or lower part of the windpipe, and is mostly prevalent among children. They are most liable to it between the first and third year of life, though sometimes it is met with later.

Symptoms.

Inflammatory croup is often preceded by the symptoms of a common catarrh, or cold; but sometimes it comes on without any previous indisposition. The child is attacked with fever and a very singular cough. It is easily distinguished by that crowing or croaking noise which in this disease always accompanies the act of coughing. The pulse is hard and quick; the child is

restless and uneasy ; and yet he will frequently be seen taking food and running about while the disease is making rapid progress. The cough and wheezing steadily continue to increase, the breathing becomes more difficult, and it left to itself, the patient will die from suffocation within the short time of three or four days. To give an idea of this complaint, it is proper to remark that if nothing be done to arrest it within the first twelve hours, it is generally beyond the reach of medicine.

Causes.

Cold, and exposure to a damp atmosphere, are most commonly the exciting causes : but those who have an attack of the croup are more liable to have it again than those who have never had it ; and in such constitutions a common cold will often be attended by croupy symptoms until the thirteenth or fourteenth year of life. In its most malignant form this disease is by some considered contagious or catching. Authors and practitioners, however, are not agreed on this point—and who shall decide when doctors disagree ?

Treatment.

A small bleeding must be immediately resorted to ; an emetic should then be given, and the bleeding promptly repeated as often as the symptoms require it. It is generally the case, however, that one bleeding from the arm is sufficient ; and as soon as the emetic has operated, leeches, or a large blister to the throat, must not be forgotten. Nausea or sickness at the stomach must be kept up, but not so much as to induce any further vomiting ; and for this purpose the solution of emetic tatar in small doses is proper ; or ipecac, squills, or seneca snake-root (see disp. for these articles,) may be used for the same purpose ; and if the emetic does not operate as physic, the bowels are then to be moved by a dose of some gentle cathartic. The tincture or decoction of digitalis (foxglove), in small doses once in an hour or two, has a great effect in lessening the force of the blood in the arteries. Calomel in very large doses is said to perform wonders. Dr. Ewell

speaks of it in the most exalted terms, and I trust I shall need no apology for introducing the testimony of his own words :

“The most speedy and efficacious of all remedies, in this alarming disease, which has come under my notice is calomel in very large doses. For this valuable remedy, I acknowledge myself indebted to my excellent and very learned friend, Professor Davidge of Baltimore. From him I have been emboldened to use it in desperate cases, in doses from thirty to sixty grains, to children. On my own daughter, only four years old, and apparently in the very act of suffocation, I used it in the dose of at least sixty grains. The cure was almost instantaneous. Among other instances of cure as surprising, was one in the infant of my amiable friend, Mrs. Chalmers, lady of the Rev. Mr. Chalmers, of Washington. The dose was forty grains. The cure was so immediate, that the joyed parent insisted I would instruct her in the remedy, for fear, on the next attack, I might not be in the way to prescribe.”

Note.—The warm bath should seldom be omitted in this disease.

On Fevers.

Of all the morbid affections of which the human body is susceptible, fever is the most important, because the most common and most fatal disease with which we meet. Some diseases are always accompanied by fever; others are not always attended by it; but in those which are not, we must be prepared for it, if it should make its appearance. By the presence or absence of fever, all our plans of treatment are regulated; and by the degrees of its violence we are enabled to estimate the danger in each particular case.

When a person is suddenly seized with shiverings or rigors, followed by a hot skin, a quick pulse, thirst, loss of appetite, uneasiness, and a feeling of general languor and lassitude, he is said to have an attack of

fever. As before observed, shivering or chilliness is the first symptom of fever, and though sometimes very slight, it is one, perhaps, that is never wanting. In some cases, the rigors or cold chills are so violent as to make the teeth "chatter,"—and the patient complains bitterly of cold. His limbs tremble, the features shrink, and the skin is contracted, pale, and rough to the touch. There is generally a pain in the back, head, and limbs, with tightness across the breast, and frequently a sensation is felt as of cold water running down the back.

The duration of the cold stage varies from one hour to two, or even three days. The time when the cold stage makes its appearance ought to be taken notice of and remembered, as marking definitely the time at which the fever commenced, which is of importance to know in order that the proper medicines may be given in time to meet the several stages which we wish to interrupt. The chills subside by degrees, and are succeeded by a heat of the body much greater than the natural warmth. The color of the skin returns, the cheeks become flushed, the eyes are suffused, and the features generally appear fuller than in health. This is called the hot stage of fever, which, as in the case of ague, goes off in a few hours, or may continue for many days, as in common continued fever.

After the hot stage has subsided, the sweating stage commences. The breathing becomes free and easy, the pulse is softer, and the urine, after standing awhile, deposits a sediment or settling at the bottom, which is generally of the color of brick-dust, though sometimes of a whitish appearance; and the patient is now left free from pain, but much exhausted, and subject to subsequent returns of all the symptoms at indefinite periods, of uncertain continuance and severity.

Although the above are only the most prominent symptoms of fever, I have thought them sufficient at present, as I shall have occasion to notice the more minute derangement of the animal functions, when treating of individual diseases. But here permit me to say, that the symptoms vary in the same fever on different individuals, and on the same persons in different places

and under different circumstances. You will ask, then, perhaps, Will it not be difficult to know how to proceed under so many different circumstances? I answer, There is nothing more easy, if we only remember one thing, and that is, that *the same symptoms, wherever we find them, always require the very same treatment.* You must therefore make it an invariable rule never to prescribe for a name, but to watch the symptoms, to treat the symptoms, and nothing but the symptoms.

The first most natural division of fever is *idiopathic* and *symptomatic*. When a fever arises spontaneously, without any obvious cause, it is called *idiopathic* fever; but, when a fever is occasioned by an injury, or by some other local affection, such as swelling and redness of the throat, acute pain in the side, &c., it is then called *symptomatic* fever.

The divisions of fever might be multiplied to a great extent; but all this would amount to just nothing at all in a practical point of view, and I shall therefore only make three divisions of *idiopathic*, or *spontaneous* fever; namely—Intermittent—Continued—and Eruptive.

1. Intermittent Fever is that which comes on in regular fits or paroxysms, with a complete intermission of fever after the fit goes off. This is generally called the *ague* and fever.

2. Continued Fever is that which has no intermission, and frequently continues from seven to twenty-one days.

3. Eruptive Fever is that which is accompanied by an eruption, such as small-pox, chicken-pox, cow-pox, measles, and scarlet fever.

Intermittent Fever, or Ague and Fever.

A paroxysm or fit of the ague and fever, is divided into the *cold*, the *hot*, and the *sweating* stages. The cold stage comes on with rigors, which are so violent as to make the patient complain of cold, the teeth chatter. the whole frame is shaken; the blood retreats from

the surface of the body, leaving the skin rough ; all the external features are lessened, and there is often violent pains in the head and back. After a few hours this subsides, and the hot stage supervenes, attended with sickness at the stomach, sometimes vomiting, scanty and high-colored urine, a hurried breathing, considerable headache, throbbing of the temples, confusion of thought, amounting sometimes to delirium. At length, a moisture begins to break out on the face and neck, which soon extends over the whole body ; the pulse comes down to its natural standard, the heat, headache, and nausea soon subside, the mind becomes clear and calm, the fever goes off entirely, and the system is, in a great measure, restored to its healthy action.

The duration of a paroxysm varies, but upon an average it lasts about six or eight hours. After a certain interval, the same paroxysm returns, accompanied by the same symptoms ; and the time that intervenes between the paroxysms, is called the type of the fever. When it comes on every day, it is called the *quotidian* type ; when it comes on every third day, it is called the *tertian* type ; and when it comes on every fourth day, it is called the *quartan* type.

What the causes may be that produce these different types of the same disease, is not well known ; but this much is certain—that climate and season, and peculiarity of constitution, have a great influence over them in some way or other : for instance—that agues in the spring are most frequently of the tertian type, and that those of the quartan type most generally prevail in autumn. The quartan ague is considered more difficult to cure than any other. In the course of the disease, one type frequently changes into another—the quotidian into the tertian, the tertian into the quartan, &c.

The ague and fever sometimes continues a long time in cold countries, without producing any material injury ; but not so in hot countries ; there the continuance of ague in a very short time induces inflammatory affections of the internal parts, especially of the liver and spleen—and this affection of the latter, produces that which is known by the name of ague cakes.

Prognosis.

Prognosis—which is what physicians call the *foretelling the termination of any disease*—is always a matter of more sound than substance; and although the season and climate in which the ague appears, together with the previous duration of the disease, may assist us in forming some idea of the danger, it is impossible to foretell the certain event of this or of any other disease. In this country, in England, and Holland, ague and fever is not generally a dangerous disease; while in Sierra Leone, Africa, and all along the neighboring coasts, it is said that it cannot be exceeded in malignity by any known disorder. If the ague has been present for any considerable length of time, it will be found difficult to remove, liable to return, and will tend materially to injure the constitution.

Causes

Exhalations from soil and marshes, called by the physicians marsh miasmata, are the great occasional cause of ague. The manner in which this occasions the ague, is certainly very obscure; but, the observations of the most learned and celebrated have placed this as a cause beyond doubt. And though the inhabitants of low and marshy grounds are generally affected with intermittents, yet it exerts a powerful influence over every species of fever, and the people residing about such places are generally short-lived.

The means to obviate this difficulty, are to drain and cultivate the lands, to clean out all the timbers and old vegetable substances—as it is from these, after being covered a part of the year with water, that the poison exhales when exposed to the sun, and, rising with the watery vapors, load the atmosphere with disease and death.

New countries are always subject to the ague, which subsides, however, upon the clearing up and cultivation of the soil, by which the whole surface is exposed to the action of the pure air. Persons should choose, if possible, for their places of residence, the most ele-

vated points of the town or country; and, if obliged to pass their time in low situations, should occupy the loftiest room in the building, keeping the windows shut which front the marsh.

Persons residing upon our western *prairies*, should, if possible, keep out of the morning fogs and the chilling night-falls. They should always dig wells, and not drink the water found in springs upon the *prairies*. Though it may seem pure, yet it is not filtered through the earth, but drained from its surface, and has in it much vegetable matter decomposed, which is poisonous to the human system, and contains the pestiferous seeds of disease.

Certain states of the air favor the disposition of the body to ague, and rivet it in the constitution, by inducing a tendency to relapse from very slight causes, such as exposure to cold, a moist state of the atmosphere, the prevalence of an easterly wind, and exposure to the night—the latter of which should be carefully avoided. Weakness of body, unwholesome diet, long watching, residing in houses the floors of which lie near the ground, are not only productive of agues, but often of the most malignant fevers.

We are far from being acquainted with all the causes that may have any agency in producing intermittent or ague and fever; but the marsh miasma, arising from the combination of earth and moisture with decayed vegetable matter, is much the most common and the most important.

Treatment.

It has been questioned whether agues ought to be cured. Many people suppose that there is something salutary in the ague and fever; but, as it frequently becomes complicated with other diseases, by neglecting to cure it in time, I would earnestly advise every one who has it, to get rid of it as soon as may be; for, as no possible danger can result from curing the disease, it is better to throw it off at once, than to risk the consequences of neglecting it. And notwithstanding it is a fact that physicians are entirely unacquainted with the

manner in which the marsh miasmata produces agues--and although they are equally ignorant of the *modus operandi*, or practical manner, in which any medicine acts in curing the ague,--still, their ignorance in this matter does not lessen the value of such medicines as, we know from experience, *does* cure it.

In the treatment of agues, as in all other complaints, we must vary our means with the existing circumstances; and though certain it is that most cases are within the control of art, yet some baffle every effort to effect a cure--but such generally wear themselves out in a few weeks. We should use all our means, however, to cure it, as the local affections which it creates are dangerous. "I have often noticed," says an old and experienced physician, "if such persons are attacked with fever within the course of a few months after the fits leave them, they almost invariably die."

There are two modes of treating ague and fever. One is strictly in accordance with the *theory* and *practice* of physicians of the old school, distinguished as the *regulars*. The other is strictly botanic, being exclusively confined to vegetable remedies. Sometimes the latter will succeed the best; besides, the remedies are usually at hand, or can be procured with very little trouble and expense. I shall therefore give both modes of treatment, and leave the patient to choose either from necessity or preference, as may be.

The Management of Ague and Fever,

Is common ground to both modes of treatment. As it is not possible to stop the fit after it has once commenced, the object must be to make it shorter and less violent by hastening the different stages. When the cold stage is on, therefore, we should endeavor to cut it short, and bring on the hot stage, by giving stimulating and warm drinks, and by putting the feet into hot water. The patient should be put into a warm bed, with bottles filled with not water, or with oricks having been boiled in hot water, wrapped up in cloths, and applied to the body. Or, the patient may be rubbed with a brush until a glow of warmth is excited on the skin; and just

before the cold stage is expected to commence, the bowels and stomach should be cleansed either by a cathartic or a gentle emetic.

In the Treatment of the Disease

In this stage, if an emetic should be given, (which is generally to be preferred,) take of the emetic tartar from 6 to 10 grains for a grown person, which is about the same as one-eighth part of a common tea-spoonful; dissolve it in a tea-cupful of warm water, and let the patient drink four table-spoonful at once. If this should not operate as a puke in 15 or 20 minutes, take one table-spoonful of the same every 10 minutes until it does operate. Or, you may mix half of the above-mentioned emetic tartar with half a tea-spoonful of ipecac.; then put it into half a tea-cupful of warm water, and drink half at once. If it does not operate as a puke in 15 or 20 minutes, take half the remainder—and, if it should be necessary, take the rest of it; or even ipecac alone might answer the purpose, though it is not so powerful as emetic tartar, or that and ipecac. mixed together. If you should choose to use ipecac. alone, take as much as a tea-spoonful in warm tea or water, and repeat the dose once in 15 or 20 minutes, until it operates as an emetic. drinking plenty of warm water or of warm camomile tea, in order to facilitate the operation.

If a cathartic or physic should be given instead of the emetic or puke, it might be better, perhaps, to give it about two hours before the cold stage is expected. A smart dose of anti-bilious pills (Brandreth's or Lee's) will do. If they are not at hand, a thorough dose of salts and senna will answer the purpose very well. Should the operation be too strong, take from a half to a tea-spoonful of paregoric, or 10 or 15 drops of laudanum; this will check it, and relieve pain in the bowels.

Should the stomach be very irritable, it may not be able to retain either the pills or salts; in which case it may be best to administer a dose of calomel and castor oil; not less than 10 nor more than 20 grains' weight of calomel (which will be about the one-eighth part of a common tea-spoonful) should be given; it should be

mixed up well with a table-spoonful of castor oil; and after taking it, the mouth should be well rinsed with warm water; then avoid taking cold, and abstain from cold drinks, and there will be no danger of having a sore mouth. If it should not operate in from two to four hours, take a second dose; and should it operate too much, then resort to the paregoric or laudanum, as directed above.

If the calomel and oil should happen to be vomited up *soon* after taking them, it will be better then to take something to settle the stomach; a few drops of essence of peppermint and laudanum mixed with water, or a little of the oil of cinnamon dropped on a lump of sugar, mashed up and mixed with water or spirits in a table-spoon, may be given; and as soon as the stomach becomes settled, try the calomel and oil again, and if the patient cannot keep it down, why then he must be contented to take a puke instead of the physic. If the patient has a strong dislike to oil, a tea-spoonful of jalap and a common dose (10 grains) of calomel, mixed together in molasses, may be given instead of oil; or the jalap may be administered without the calomel—increasing the dose to a tea-spoonful and a half, perhaps; and if it does not operate in two or three hours, repeat the dose as before directed.

As soon as the hot stage comes on, it will be proper to discountinue the warm drinks and stimulants, and make use of cold and sour drinks, such as lemonade, or 15 drops of elixir of vitriol in half a pint of water, or barley water with vinegar, or vinegar whey, or dissolve about a drachm of nitre (the eighth part of an ounce) in a pint of water or flaxseed tea, and take a tea-spoonful of it every hour; or warm boneset tea may be taken; or dissolve a little emetic tartar in cold water, making it weaker than you would for a puke, and take a tea-spoonful once an hour, just so as to produce a slight nausea at the stomach, but not so much as to induce vomiting; or one-fourth of a tea-spoonful of ipecac may be mixed with water, and given in the same way, for the same purpose; that is, to reduce the fever, and create a moisture of the skin; and if the fever run.

very high, attended with severe pain and a white tongue, a small bleeding will sometimes be of service especially when the patient is of a very full habit.

When the sweating stage comes on, you may discontinue the use of the foregoing means, and omit giving any medicine until it goes off, and a perfect intermission takes place. During the intermission, the object is now to prevent the return of the paroxysm or fit, by giving tone or strength to the system. For this purpose it will be proper to steep an ounce of Peruvian bark in a pint of water, and take a table-spoonful of it once an hour; or the bark may be taken without being steeped, by mixing it up with molasses and milk, or with anything that best suits the taste, and take about a table-spoonful every hour; and if it does not sit well on the stomach, add to it a few drops of the essence of cinnamon or peppermint, or, what is better, a few drops of laudanum.

The sulphate of quinine may be given instead of the bark—and on many accounts it is frequently preferable. Quinine is obtained from Peruvian bark by a chemical process; it possesses the same strengthening properties as the bark, and is generally considered better, because it requires less for a dose, and agrees better with the stomach. Quinine is usually administered either in solution or pills: if in solution, the following is a very simple formula, viz.: fill a two-ounce vial with water, and drop into it 15 or 20 drops of sulphuric acid, (oil of vitriol), or enough, at least, to make the water as sour as vinegar; then put half of a tea-spoonful of quinine into the vial, and shake it until the quinine is dissolved: or, if given in pills, the following: 20 grains of quinine, 20 grains of African Cayenne pepper, and sufficient molasses to pill; mix it well, and make it into 20 pills. A tea-spoonful of the solution, or a pill of the above, may be taken once an hour until the time for the next fit to come on shall have passed over. If, however, the paroxysm should return at the expected time, notwithstanding the means used here to prevent it, you may then discontinue the bark or quinine, until the fit is over; or, you may continue the use of it through the

cold stages, taking hot drinks at the same time, putting the feet into hot water, &c., &c., as before directed for treating the cold stages. But, as soon as the hot stage comes on, you must discontinue the bark or quinine, and then proceed according to the directions previously given for treating the hot stages.

Substitutes for the Bark or Quinine.

The bark of the broad-leaved willow is sometimes given in the ague, as a substitute for Peruvian bark. One ounce and a half of the dried and pounded bark should be infused in one quart of water for six hours; then boil it over a gentle fire for a quarter of an hour, and strain for use. Half a gill may be given as a dose, five or six times a day, during the intermission. The barks of our common willows, which are bitter and astringent, have been used with success in the same diseases. And I consider the bark of the common dogwood (*cornus Florida*) to be but little, if any, inferior to the Peruvian bark, and it may be given in the same manner for ague and fever.

Arsenic is now considered to be a valuable medicine in the ague. The arsenical solution called Fowler's Solution is given in the intermission. The dose for an adult is five drops, gradually increased to ten or twelve, two or three times a day. This will sometimes produce vomiting, in which case it will be proper to suspend its use, and give a cathartic of rhubarb. As a substitute for arsenic, the sulphate of zinc (white vitriol), in doses of one or two grains combined with a little opium, may be given two or three times a day during the intermission. We must bear in mind, however, that while using these medicines, it is important to give a general cathartic, such as rhubarb, or castor oil, or salts, every few days, in order to keep the stomach and bowels regular, and to carry off the medicine which the patient is taking; and that after the fever is entirely interrupted, we should continue the medicine for several days to prevent its return.

"And when all other means fail, as they sometimes do," says an old practitioner, "I generally had good

success in giving two or three grains of calomel, mixed with about the same quantity of quinine, three or four times a day, when there was no fever, taking care to give a dose of castor-oil or epsom salts just before the next paroxysm was expected, in order to carry off the calomel and quinine out of the system.

The different remedies and cures for ague and fever are almost as numerous as the number of persons who have attempted to cure it. The plan which I have struck out, however, is the most relied on by physicians, and is generally the most successful.

There are some practitioners who are in the habit of disguising their medicines under as many different forms as their ingenuity can devise, in order to prevent the patient from knowing what the medicine is, and they call it by some pretty name or other, such as tasteless ague drops, the ague pills—the aromatic pills, &c. All these are preparations of arsenic and quinine, and if any of them be given during the hot stage, they increase and prolong the fever, and in many cases endanger the life of the patient; but as soon as the patient has gone through the cold—the hot—the sweating stages, these medicines might then be given with perfect safety.

NOTE.—To prevent the return of the ague I would recommend the following pill: 20 grains of sulphate of quinine; 20 grains of pulverized Cayenne pepper; 20 grains of pulverized rhubarb well mixed together, with just enough to pill it, then divide in 20 pills. Take one of these pills every three hours for twelve or fifteen hours on the sixth and seventh days—the fourteenth and fifteenth days—on the twentieth and twenty-first days—the twenty-seventh and twenty-eighth days after the fit is broken. In other words, take on these days four or five of these pills, with three hours intermission between each pill.

The Botanic Practice of Treating Agues and Fevers.

There may be some, who, from prejudice against what is called the old school practice, or from being so situated as not to have access to an apothecary, would prefer the botanic practice. I have therefore thought proper to subjoin this method also of treating

Ague and Fever.

In this complaint the stomach and bowels are generally out of order; therefore, when the cold fit comes on, or before, drink freely of warm boneset tea, made strong, until it produces puking, and operates downwards. Or a dose of bloodroot, or lobelia, or mandrake physic. The best way to prepare mandrake for physic is by taking the roots, two parts; dwarf elder roots, one part; boil down and make common-sized pills; dose, from two to four. If mandrake is not at hand, castor oil mixed with rhubarb or jalap may be taken for the same purpose. After this, take a dose of powdered gentian root, every morning before eating, and during the day take the dogwood bark (*cornus Florida*) in its proper dose, or any other strengthening remedy, such as camomile flowers, quassia made into a tea, &c.

If you should find the fit coming on again, discontinue what you are taking until all is over; and as soon as the cold stage begins to lay its icy hands upon you, just put your feet and legs into water as hot as you can bear it, and drink down cold water until you begin to puke with a vengeance, which will be in a very short time; then go to bed and sweat as freely as you please, and either recommence taking the dogwood or the quinine pills according to the formula in the above note—one every hour while the fever is off, and if they should prove too physicing, prepare the pills without the rhubarb, as directed above.

An Indian Cure for Ague.

Put three hen's eggs into a pint of vinegar, and after the shell is dissolved by the vinegar, the eggs are to be

taken out whole, and half a gill of this vinegar is a dose, three times a day.

Another Cure.

Mix equal parts of pulverized cinnamon, rhubarb, sulphur, and cream of tartar. A tea-spoonful of this mixed with molasses should be taken twice a day. If the fits are still obstinate, then a syrup made of snakeroot, gentian, wormwood, colt's-foot, cahosh root, tansy and hyssop, adding spirits and molasses, is to be taken before the cold fit; and another syrup of coolworth, maiden-hair, chicken-grass, and bull-rush is to be taken after it.

NOTE.—Let it be recollected that the principal secret in curing the ague is to avoid as much as possible the causes which have induced it—to keep the stomach and bowels in good order—to avoid taking colds—to be careful about diet and exercise, and to take strengthening remedies.

Bilious or Remittent Fever.

Causes.

Remittents are produced from the same causes that intermittents are, and differ from intermittents only in being more violent. Intemperance, especially in the use of ardent spirits, produces fevers in the most malignant form.

Symptoms.

In remittent fever there is a remission or abatement, but the fever does not go entirely off as intermittent; this is the characteristic difference between the two. It commences with coldness, shivering, violent pain in the head and back, dejection of spirits, sickness at the stomach, giddiness, loss of strength, and difficulty of breathing. This is followed by heat; the pulse, which was small in the cold stage, becomes full and quick, all the symptoms increase in violence, the sickness of the stomach frequently amounting to full vomiting. Soon these symptoms abate, the skin becomes moist, and the patient feels almost well; but he is soon disappointed by another

attack, which comes on with increased violence, and if not checked, great restlessness, delirium, offensive discharges, twitchings of the tendons, profuse clammy sweats, and convulsions frequently come on, which soon terminate in death.

Treatment.

In the treatment of this fever, our object is to bring the remission to an intermission ; for which, on the commencement, if there is much pain in the head, with a hard, quick pulse, bleeding will be useful, and may be repeated in quantities of from half a pint to a pint, according to circumstances, once in ten or twelve hours until the urgent symptoms abate. But the most important is to evacuate the bowels and stomach of their impure contents ; first take 25 or 30 grains of ipecac, or a tea-spoonful and a half, mix in a gill of warm water, take half of it, and if it does not operate in 20 minutes, take the other half, and if that does not operate in 20 minutes, take half as much more, and so on until it does operate, or ten grains (one-fourth of a tea-spoonful) of tartar-emetic may be dissolved in a tea-cup of hot water—four table-spoonsful every ten minutes until it operates. If the patient drinks freely of warm water, it will favor the operation. Or 5 grains of tartar-emetic mixed with a tea-spoonful of pulverized ipecac in a tea-cupful of warm water, taken as above.

When an emetic or cathartic operates too excessively, give a small pill of opium half as large as a field pea, or half a tea-spoonful or more of paregoric, or fifteen or thirty drops of laudanum, either of which may be repeated once an hour or two until the operation is checked. If the puke does not operate as physic, it should be followed in a few hours by a cathartic, in common dose, bilious pills, calomel, jalap, castor oil, or any other that is convenient.

Or where an emetic cannot be given, we must give active cathartics ; calomel, from five to ten grains, with fifteen or twenty grains of jalap ; or give calomel with about a half dose of any other physic, or give jalap, or salts and senna, or oil, or any other physic without the calomel. When the emetic has operated smartly it

will not be proper to repeat it on the recurrence of the very next paroxysm, unless the symptoms are very violent, but should then content ourselves with an active cathartic.

When the first passages have been well evacuated, and the fever yet comes on as usual in relation to time and stage, you must resort to refrigerant (cooling) and diaphoretic (sweating) remedies—such as a tea-spoonful of spirits of nitre, or from seven to ten grains of Dover's powders in a little cold water, or elm or flax-seed tea, once in an hour or two, or three, as the urgency of the symptoms may seem to dictate. This promotes perspiration, by causing the blood to flow to the surface of the body, and always is followed by an abatement of the symptoms. Instead of the above, put about a half tea-spoonful of tartar-emetic in a tea-cupful of cold water; give a tea-spoonful once an hour, until the fever abates.

The warm bath is highly useful, and when it cannot be used for want of a proper vessel, the feet should be put in warm water once a day.

The cold effusion is best, but must be used only when the fever is at its height. The most convenient way of applying cold, is by sponging the body with cold water, or vinegar and water; this should never be neglected in any case of fever; especially in hot weather and hot climates.

Where there is much distress at the stomach, apply mustard drafts as near the seat of the pain as possible; also, at the back of the neck, or between the shoulders and on the inside of the arms, when there is severe distress in the head, whether attended or not with delirium. And if mustard drafts do not afford relief, blisters must be resorted to, or leeches, or cupping.

When the fever goes off with a perspiration, and the patient is relieved of all the violent symptoms, the pulse is soft and regular, the heat of the skin and the flush of the face have passed off, we have an intermission, and must give tonics. Peruvian bark, in dose of half a table-spoonful once an hour, mixed in anything convenient; or steep one ounce of the bark in a pint of

boiling water ; give of this a table-spoonful once an hour, or prepare the quinine as directed in ague and fever.

If any of these produce fever, you must lessen the dose ; and if yet the fever is increased, suspend entirely the use of them, and give an emetic or cathartic, for the stomach and bowels are not sufficiently cleansed.

If the patient becomes suddenly faint, extremely weak, deranged, sinking of the pulse, twitching of the tendons, the tongue furred, and black, it approaches to typhus ; and wine, and bark, and quinine, &c., must be given, with ether or hartshorn, in a dose of a tea-spoonful once an hour ; castor, five or ten grains, to allay the irritability, or a small pill of opium ; apply blisters to the arms and legs, and drafts of mustard, onions, &c., to the feet and palms of the hands.

NOTE 1.—To allay the excessive vomiting which sometimes attends the commencement of this fever, we must apply flannels wrung out of hot water, vinegar or spirits, or a mustard poultice, or blister over the region of the stomach—at the same time we are directed by authors to give opium, or lime-water, soda, magnesia, charcoal, &c. But whatever is given with a view to check it must be in as small quantities as possible, or it will overload the stomach, and increase the vomiting.

NOTE 2.—The food and drink must be adapted, in general, to the taste of the patient ; the lightest and most nourishing will of course be the best, such as rice, arrow-root, panado, gruel, mush, custards, roasted apples, and mild kinds of ripe fruits. The patient must be kept clean, and everything about him so.

NOTE 3.—The only means of prevention are to avoid exciting causes by living temperately, keeping the bowels regular ; avoid cold, moist air, all sudden exposures to cold, and observe the utmost cleanliness in our persons and dwellings.

The Botanic Practice of Treating Bilious or Remittent Fever.

The Bilious Fever is of the same nature as the ague and fever, but as the remission between the fits is so short, there is not so good a chance to strengthen up the system, for it will not do to give tonics when the fever is on. Therefore, you must try to make the *remissions* longer, and so turn it into the ague and fever; and in order to do this, if the stomach and bowels have been well cleansed by a puke and physic, give a decoction of pleurisy root, and also small doses of lobelia to sicken the stomach a little; this will produce a copious perspiration or sweat, and you may then take tonics to strengthen the system, the same as for ague and fever. Elixr. vitriol, 15 or 20 drops, in a gill of pure water, half an hour before eating, makes a good tonic when the fever is off.

During the fever one-fourth of a tea-spoonful of pulverized mandrake and blood-root may be swallowed every three or four hours, or less if it pukes; and some gentle physic ought to be taken as often as once in two or three days. But the best way of treating this or any other fever is to throw it off in the beginning by taking a smart dose of mandrake physic, and then a sweat, and afterwards something to strengthen the system. You may take a sweat by using the pleurisy root, or by bathing the whole body in warm water, in which hemlock boughs have been boiled; or by sitting over the steam of the same, drinking warm peppermint or pennyroyal tea at the same time; or, if not able to sit up, beech blocks boiled in the same may be put to the patient in bed, and some kind of drafts applied to his feet.

The Yellow Fever.

This fever mostly prevails in hot countries, frequently epidemically, and is often attended with great mortality. The nature of this fever is very much the same as bilious remittent fever, and it differs from it only in being much more violent—as this disease progresses (which it does usually very rapidly), great irritability of the stom

ach comes on, the matter thrown up is generally slimy and tasteless, very seldom bile, and as the disease still advances, what is ejected from the stomach assumes the appearance of coffee grounds; this is called the *black vomit*, but is not always present. About the same treatment is proper as in cases of bilious remittent.

Prevention of Yellow Fever.

Persons residing in places where they are exposed to this disease must be very careful of not indulging too much either in eating or drinking; and particularly in not exposing themselves to the heat of the sun, or the night air; as an error in these things is often of the most fatal consequence. Their food should be such as is easy of digestion, and should consist chiefly of vegetables and sub-acid fruits. For drink, a little wine and water may be allowed. And above all, let the body be kept gently open, once in six or seven days, for eight or ten weeks, till the constitution be somewhat inured to the heat of those burning climes.

Inflammatory Fever.

The attack, which is generally very sudden, commences with excessive prostration of strength and shivering, which are soon succeeded by a violent heat of the skin, pain in the back, headache, giddiness, and general uneasiness. The headache is very acute, the eyes are suffused, and cannot bear the light; the face is full and red, and the whole countenance flushed; the arteries of the head beat violently. There is often bleeding at the nose, sometimes delirium, and the tongue becomes rapidly coated with a thick fur; nausea or sickness at the stomach, vomiting of bile, great thirst, and a costive state of the bowels prevail. The pulse varies from one hundred to one hundred and twenty a minute, strong, full, and regular. Sometimes the pulse is weak and depressed, but rises immediately on bleeding. The breathing is quick, the skin very hot and dry, and the urine scanty and high-colored. If suffered to run its course it may prove fatal in less than twenty four hours.

Treatment.

The patient generally requires bleeding and blistering, in order to prevent the inflammation from settling on the brain or other parts of the body; also, an emetic and a cathartic. After bleeding, puking, and purging, sudorifics or sweating medicines are to be used when the skin is hot and dry, and discontinued as the feverish symptoms go off and the skin becomes moist.

Six grains of tartar emetic.

One quart of water.

A wine-glassful of this mixture may be taken once in four hours as a sudorific, or half that quantity once in two hours, less or more, as the patient can bear it, without puking. Cooling drinks likewise, such as nitre or cremor tartar dissolved in water, may be given once an hour between the times of taking the sudorific. After the system is properly reduced by bleeding, &c., if there should be a determination of blood to the head, and a stupor or a constant inclination to sleep should come on, a blister must be applied to each arm, between the elbow and shoulder, or a blister on the back of the neck; and if the pain should now determine to any other part of the body, a blister is to be applied to it. As soon as the general fever goes off, and the skin continues moist, the tongue becomes clean, and there is no very particular determination of pain to any part of the body, the patient may begin to take strengthening or tonic medicines.

Mix together 1 ounce of Peruvian bark.

1 ounce Virginia snake-root.

1 ounce of orange peel.

1 ounce of white oak bark.

Put on this mixture one quart of boiling water; let steep. Dose, one wine-glassful once in two hours more or less, as the patient can bear.

NOTE.—The above mixture must not be given until the fever has disappeared, and must be discontinued, if in any measure it should reappear.

Typhus or Nervous Fever.

The patient complains of chilliness, alternated with

sudden flushes of heat, he is listless and uneasy, and if he sleeps, groans and starts, and rises without being refreshed; he complains of dull aching pain in the head and limbs, with soreness of the flesh, oppression in breathing, nausea, and want of appetite, increasing for several days, the patient being well enough to be up without having power to attend to business. The disease is then fairly set in, increasing in the evening, and declining in the morning. The tremor or trembling observed on putting out the tongue, or raising the hand, is one of the most common symptoms of this fever. As the fever advances these symptoms become more intense, attended with confusion of the head, nausea, a sense of weakness, dejection of spirits, and frequent sighing without knowing the cause. The pulse varies during the day, sometimes a little quicker than usual, at other times about the natural standard.

Sometimes the disease sets in more violently, with great pains in the back and limbs, weariness, a burning pain in the stomach, vomiting, vertigo, dimness of sight and numbness of the extremities. The hands now tremble so as to prevent guiding them to his mouth; the fingers are in constant motion, tongue becomes dry, of a dark color, and trembles on attempting to put it out. Stupor finally comes on, involuntary discharge from the bowels, hiccough, twitching of the tendons, cold clammy sweats, and death.

Treatment.

Whenever practicable, procure the attendance of the most skilful physician; but if this cannot be obtained, produce a smart evacuation of the stomach and bowels. For this purpose twenty or thirty grains of ipecac, or half the ipecac with four or five grains of tartar emetic, may be dissolved in a pint or more of weak camomile tea, of which the patient may drink a gill every fifteen or twenty minutes, until it excites vomiting, and this should be assisted by drinking freely of warm water. If this emetic should not operate as physic, a cathartic of rhubarb, or castor oil, or cremor tartar, should be given the next day.

Yeast is a powerful remedy in this disease, and after

the stomach and bowels are cleansed, it sometimes effects a cure without anything else. It may be given alone in doses of half or a whole table-spoonful every hour or two, or mixed up with powdered charcoal, or two table-spoonsful of it may be added to a quart of beer or porter, and a wine-glassful may be taken every hour or two.

Sponging the body, when the skin is dry and hot, with cold water, is likewise one of the most powerful means that can be made use of in typhus fever, and the sooner it is adopted, after cleansing the stomach and bowels, the better. If great debility with sinking of the spirits should come on, after reducing the heat by sponging or otherwise, some cordial, such as wine or brandy, should be given immediately.

In this fever, the greater the debility the greater will be the danger, and therefore, as soon as there is any remission of fever, the great point is to keep up the strength by tonics.

Mix 16 grains of sulph. quinia,
2 ounces of pure water.

One tea-spoonful every hour; or mix together
4 ounces compound infusion of gentian.
 $\frac{1}{2}$ do. Tincture of Colombo.
 $\frac{1}{2}$ " compound Tinct. of Cardamoms.

Two table-spoonsful are to be given morning, noon, and evening, with the occasional addition of 20 or 30 drops of elixir vitriol.

For pain in the head, apply cold vinegar and water, or ice in a bladder, or blisters on the back of the neck, with mustard poultices to the feet.

When a diarrhœa or looseness occurs, three or four drops of laudanum should be given, to be repeated and the dose increased as may be found necessary.

But if these means fail and there is great prostration of strength, with stupor, old Madeira wine must be given in large quantities; he will relish it better mulled at first, but will soon be able to take it clear, to the extent of one or two quarts a day, without any danger of intoxication. It should be taken until the pulse fills, the delirium abates, and warmth returns to the extremities,

and upon the smallest appearance of the stupor returning, the pulse quickening, and sinking, the wine must be resumed, and continued in that quantity which is found sufficient to keep the patient from sinking. When wine cannot be had, rum and brandy diluted with milk or sweetened water will answer, and with some patients is relished better. As soon as the patient is able to take nourishment, the quantity of wine must be gradually diminished, for even a third part of what was necessary when laboring under the disease, would now produce dangerous intoxication.

NOTE 1.—In very malignant cases, this fever is fatal on or before the seventh day; more frequently, however, those who die are carried off towards the end of the second week. When the patient lives over the twentieth day, he generally recovers.

NOTE 2.—After the stomach and bowels are well cleansed as directed above, physic must be administered with caution, on account of the tendency to fatal diarrhœa.

NOTE 3.—In the early stage of this disease, when there is much heat, washing the face and hands with cold vinegar and water, and wiping the body with cloths wrung out of the same, will be highly refreshing; and in the more advanced stage of the disease, when there is less heat, bathing daily in a strong decoction of black or red oak bark, about milkwarm, will produce the happiest effects.

NOTE 4.—The patient should have his linen and bedding changed often, and everything that contributes to cool the air and cleanliness should be adopted.

Small-Pox.

Symptoms.

At the end of ten or fourteen days after receiving small-pox contagion into the system, the eruptive fever commences with severe pain in the back of the head, with vomiting and distressing pain at the pit of the

stomach The patient is very drowsy, and sometimes delirious. On the third day of this fever the eruption appears like flea bites, first on the face and limbs, and gradually extending over the body. On the third day of the eruption, a small vesicle or blister, having a central depression, is observed on the top of each pimple or pustule. On the sixth day of the eruption, these pustules, instead of having a central depression or flatness, are now filled up with a thick yellowish matter, and become plump and round. On the seventh and eighth days of the eruption the pustules burst, and scabbing commences over the body. The mildest form is when the pustules are distinct from each other, and are well filled with matter; it is then called *distinct small-pox*. When the pustules run together and remain flat, it is termed the *confluent small-pox*, and is much the most dangerous.

Treatment.

The patient must be debarred from animal food, and have cooling acids for drinks, keeping his body open with gentle laxatives, and above all, exposing him freely to cool air. The more urgent the symptoms, the more will the patient stand in need of air; for where the ventilation is free, it is inconceivable how refreshing it proves, and how suddenly it is capable of reducing the pulse, and of moderating the symptoms. The proper treatment of the patient from the very first attack of the disease, will have great influence on the form which it assumes. If he be kept in a warm room, be loaded with bed-clothes, and get warm drink, the fever will be severe and the eruption copious, while by an opposite treatment the disease may be rendered perfectly mild.

In the early stage of small-pox, and during the eruptive power, when the symptoms run high, it will be proper to wash the body generally with cold water. This, when had recourse to on the attack of the variolous fever, usually mitigates the headache, pain in the back, and other febrile symptoms; a slow and gentle perspiration succeeds, and a mild eruption takes place. Where it is resorted to after the small-pox has made

their appearance, and by their quantity and duration of the fever a confluent pock is expected; the cold bath not only moderates the febrile symptoms, but also diminishes the number of the pustules, and greatly lessens the danger of the disease.

NOTE 1.—The temperature of the patient's chamber should always be such that he may experience no disagreeable degree of heat, but rather a sensation of cold; and except he complain of being chilly, the cold regimen cannot be carried too far.

NOTE 2.—He should lie on a mattress covered only with a few bed-clothes, a feather bed being apt to occasion too great a degree of heat. He should have an apartment to himself, as the heat of a crowded room must prove injurious; and his body linen, as well as that of the bed, should be shifted frequently.

NOTE 3.—Blood should be taken with great caution, and *that* usually by cupping or leeching, where the fever runs very high in persons of full or robust habit.

NOTE 4.—Great caution should be observed with respect to the use of purgatives in this disease. To dislodge the contents of the bowels in such cases, where costiveness prevails, the most gentle laxatives, such as Epsom salts, or Rochelle, powders or oil, with the occasional use of clysters, only should be employed.

NOTE 5.—On the coming on of the fever, the stomach in some cases is much disordered, and a constant nausea, or frequent vomiting, is apt to arise; to obviate these, it will be proper to give a gentle emetic, working it off with a few draughts of camomile tea.

NOTE 6.—To prevent the disease, be vaccinated with cow-pox matter, and if it takes properly you are generally safe from the contagion of small-pox.

Chicken-Pox (Varicella, Lymphatica).

After a very slight fever the eruption appears in vesicles or blisters about the size of a split pea, perfectly transparent, like that which is raised by a scald or blister; but they have no central depression like small-pox. About on the fourth day the matter in them becomes thick, and then they very much resemble that stage of

the small-pox when the central depression of its pustules is swelled out with matter.

Treatment.

It is generally sufficient that the patient be kept moderately cool, and supplied with cold or sour drink and light food. If there should be much fever, a dose of salts may be given; and finally the whole general plan to be adopted, both in this disease and in the varioloid, is the same as that which is practised in small-pox.

The Measles.

The measles are known by the appearance of small eruptions, resembling flea bites, over the face and body; but particularly about the neck and breast, not tending to suppuration.

The signs are, chilliness and shivering, pain in the head, fever, sickness, and vomiting, as happen in most fevers; but the chief characteristic symptoms are, a cough, and heaviness about the eyes, with swelling and inflammation, together with a discharge of a serous humor from the nostrils. The eruptions appear about the fourth or fifth day, and sometimes about the end or the third. On the third or fourth day, *from their first appearance*, the redness diminishes, the spots or very small pustules dry up, the skin peels off, and is replaced by a new one. The symptoms do not go off on the eruption, as in the small-pox, except the vomiting; the cough and fever increase with the weakness and defluxion on the eyes.

To distinguish Scarlet Fever from the Measles.

The scarlet fever sometimes resembles the measles, so exactly as not to be easily distinguishable; though this is a matter of great importance, because the manner of cure in the two diseases is extremely different. The redness of the scarlet fever is more equally diffused than in the measles, and is not, like the latter, in distinct spots with the natural color of the skin interposed. In the measles, also, the eruption rises more above the skin, and occasions a roughness to the touch, which is hardly observable in the scarlet fever, except a very little roughness sometimes in the arms. In the scarlet

fever there is seldom a severe cough ; the eyes **do not** water much, and the eyelids are not red and swollen ; all which rarely fail to attend the measles. The time of the eruption is likewise different, for it appears in the scarlet fever both in the face and arms on the second day ; but in the measles it begins only about the third day to be visible on the chin and breast, and does not come to the arms and hands till the fourth or fifth day.

Treatment.

The treatment must in the main be regulated by symptoms. If the disease is slight, nothing more is necessary than to keep the body open by gentle cathartics, as epsom salts, castor oil, senna, &c. But if the fever runs high, with difficulty of breathing, we must take blood, give an emetic, or brisk cathartic ; blister the breast, arms, and legs, to draw the blood from the lungs ; breathe through a tea-pot the steam of hot water, and give Dover's powder or small doses of antimony or ipsecac, or any of the sudorifics (sweating medicine) used in fever. This course will be particularly appropriate where the eruption of measles disappears before the proper period to bring them out, together with putting the feet in warm water, and giving warm drink, wine whey, warm sling, mint tea, &c., but the patient must not be exposed to cold while the eruptions are coming out.

If the cough be troublesome, give freely of flax-seed tea, slippery elm, or solution of *gum-arabic*. To allay the cough, take at night,

Tea-spoonful of pæregoric, or from 20 to 40 drops of laudanum.

The bad consequences which sometimes follow this disease, such as consumption, weakness of the bowels, obstinate inflammation of the eyes, &c., are generally obviated by bleeding and evacuating the stomach and bowels, by an emetic and cathartic, in the first stage of the disease.

Sometimes the symptoms manifest a malignant character, and a putrid tendency prevails. In such cases, the treatment must be right the reverse of the above, and the case be conducted as in nervous fever—which see.

Regimen.

Regimen should always be guided by the degree of fever ; cooling mucilaginous drinks, such as rice or barley water, flax-seed tea, elm tea, solution of gum-arabic, &c., with jellies, toast, panado, rice, arrow-root, sage and gruel.

The greatest caution must be observed, that the patient be not exposed suddenly to cold. Persons have been killed in a few hours through the over officiousness of attendants by changing their clothes when they were in a profuse perspiration, or otherwise exposing them to a chill.

Scarlet Fever.

This fever takes its name from the scarlet efflorescence which appears on the skin of the whole body, not rising above the surface, attended with heat, dryness, and itching. After two or three, or four days, the efflorescence disappears, the skin peels off, and there remain branny scales dispersed over the body.

Treatment.

Where the disease appears in this simple state, there is little required from art but the warmth of the bed, confining the patient to diluent drinks, and giving a gentle cathartic or two at the close of the distemper.

Malignant Scarlet Fever.

The scarlet fever sometimes puts on a very malignant appearance. It then attacks with a chilliness, languor, sickness, and oppression ; these are succeeded by great heat, nausea, and vomiting, with a soreness in the throat, a small, quick pulse, and a frequent and laborious breathing. The tonsils appear inflamed and ulcerated, though not much swelled ; and on the third day the efflorescence appears, but without any relief.

Treatment.

This dangerous kind of the scarlet fever requires great caution and judgment in the method of cure. Bleeding can hardly be ordered with safety ; but if inflammatory symptoms should prevail so as to require

that evacuation, it must be made by applying cupping-glasses betwixt the shoulders, and repeating the operation as occasion requires. The same precaution is also necessary in promoting an evacuation of the bowels; for antimonials, which are so successful in other fevers, in this frequently bring on violent and dangerous purging. The body, if costive, must be kept open by gentle and emollient clysters. A blister should be applied between the shoulders, and another round the throat, if there is great difficulty in breathing. If a putrescent state of the body take place, the chief dependence must be on Peruvian bark, joined with snake-root and cordials. If the bark should run off by stool, three, four, or five drops of laudanum may be added to each dose.

To Prevent Infection.

To prevent infection, the sick must be confined in separate apartments, the patient and everything about him must be kept perfectly clean, and the room well ventilated; frequently syringing or gargling the throat and washing the hands of the attendants will render security, and prevent the spread of the disease by infection.

Miliary Fever.

The miliary fever takes its name from the pustules or bladders resembling, in shape and size, the seeds of millet. There are two kinds of this eruption, the white and the red. It begins with a shivering, followed by a proportional degree of heat; a depression of spirits; a pulse sometimes quick and weak, at other times rather depressed and hard; an oppression at the fore-part of the chest; a frequent sighing; terror after sleep, and pale urine. On the third or fourth day the eruption appears chiefly on the neck, breast, and back, being generally preceded by a profuse sweat of a sourish smell, and a pricking or tingling sensation in the skin, especially in the fingers, and an itching in those places where the pustules are most numerous. After the eruption is completely out, the symptoms subside, the urine

becomes higher colored, and the pulse more calm, soft, and full. In about seven days the eruptions dry and peel off.

Treatment.

If the febrile symptoms run high, bleeding in the beginning, before the eruption, will sometimes be necessary, which must be proportioned to the different circumstances of the patient's case; and then, the following draught to be given:

8 tea-spoonsful of water, 35 drops of antimonial wine, the juice of half a lemon, with two tea-spoonsful of syrup: mix. This draught may be taken every four hours, as long as the fever runs high.

Further Remedies.

If, on the contrary, the fever should appear of the low nervous kind, cordial medicines are required, and winewhey may be allowed for drink, but the patient must not be kept too warm.

When a violent pain in the head, or delirium occur, a blister should be immediately applied betwixt the shoulders.

Inflammation of the Brain.

Symptoms.

The attack commences suddenly by pain in the back of the neck, shooting into the head, violent throbbing in the arteries of the neck and temples; redness of the face and about the eyes, terrible headache, incapability of bearing light or noise, the ideas become confused, the pain increases, the eyes sparkle, fierce delirium comes rapidly on, the patient obstinately shuts his teeth against all food and medicine, and, with any thing he can lay hold of, he attempts to destroy his own life.

Causes.

Exposure of the head to the scorching rays of the sun, violent fits of passion, deep and long continued study, sudden exposure to cold after great heat, intem

perate use of ardent spirits, suppression of usual evacuations, poisons, want of sleep, erysipelas of the face, fracture of the skull, &c.

Treatment.

Bleed largely from the arm—from a pint to a quart. During the bleeding let the patient be held in a standing posture. Immediately after bleeding a large dose of salts or calomel and jalap must be given, and if it does not operate in two or three hours, let it be repeated.

After the pulse is reduced by bleeding and physic, if the pain in the head still continues, then cupping or leeches should be forthwith applied to the temples, forehead, and back of the neck. And if the symptoms still prove obstinate the head ought to be shaved and the whole of it covered with a blister. It will be of great service to immerse the feet and legs in warm water, and afterwards to bind hot mustard plasters on the feet in order to produce a revulsion of blood from the head. To produce perspiration, mix together one ounce of spirits of nitre, one ounce of pure water with 2 or 3 grains emetic tartar dissolved; and of this mixture give a tea-spoonful every hour, or enough to sicken without vomiting.

Finally the patient should be kept in an erect posture as much as possible, in a dark room, and everything around him ought to be perfectly quiet in order to keep the mind as calm as possible.

Delirium Tremens.

Symptoms.

Trembling of the hands or whole frame, sleeplessness, delusions of sight, talks incoherently, and sometimes raves, and offers violence to himself and others. It is very dangerous. If not cured it usually runs its course in four or five days, and sometimes terminates in a fatal epileptic fit.

Causes.

Intemperance, or suddenly abstaining from ardent spirits after a long intemperate use of them, is the most

common cause. It is said, however, that rheumatism, violent agitation of the mind, the poison of lead, and the long continued use of opium, will produce it.

Treatment.

Some practitioners give an emetic at the onset, but opium is the main stay and grand sheet anchor in this complaint. Bleeding is to be strictly forbidden except by leeches on the back of the neck and about the head. If it be occasioned by suddenly abstaining from strong drink, it should be given to him again in small quantities. The principal object is to calm the disturbance of the nervous system and procure sleep, and for this purpose opium must be given in large doses until it produces the effect. Ether, hartshorn and camphor, are likewise useful; and with or without an emetic a dose of physic should be given in the beginning in order to regulate the state of the bowels.

Quinsy.

This is an inflammation of the throat, affecting especially the gland, called the tonsil glands, and spreading in many instances to the palate, tongue and nose. It usually runs its course in six or eight days. This is not considered a disease of much danger generally, yet it is that which deprived not the United States only, but the world, of her brightest ornament—GEORGE WASHINGTON.*

* On the afternoon of the 13th December, 1799, while the General was riding out to one of his farms, he was overtaken by a rain which soon turned into a snow storm. A quantity of snow was deposited betwixt his cravat and neck, to which he paid no particular attention, but on his return home supped and went to bed as usual. Sometime before day he was awakened with sore throat, and difficult breathing. A domestic was called up, who bled him, which afforded no relief. About ten o'clock Dr. Craik, of Alexandria, reached Mount Vernon; he immediately called for counsel, doctors Dick and Brown. All was done that human skill could do; but the moments hastened only to confirm the previous declaration of the illustrious sufferer, "that his hour was come."

To oblige Mrs. Washington he continued to take medicine until the inflammation obstructed swallowing; he then undressed him-

Treatment.

Give an emetic in the commencement of the disease. This often arrests it. When the symptoms are urgent and the fever high, bleed, or apply leeches externally to the throat. When the tonsils or palate are much swelled, they should be scarified with a knife or lancet. A little blood obtained directly from these parts will afford great relief.

Aque ammonia, one ounce; sweet oil, one ounce. Mix, and use by rubbing it on the throat as a liniment.

The bowels must be moved by a smart dose of salts. Mix together

$\frac{1}{2}$ pint of strong sage tea,
A tea-spoonful of pulverized alum,
Two table spoonsful of honey.

Use this mixture frequently for a gargle; but not swallow this composition.

In the early stage of this complaint, blisters about the size of a fifty cent piece, applied on the throat, will sometimes drive it away.

When the tumor is so large as to impede the breathing, a deep incision must be made with the lancet, this will let out the matter if formed, and if not, the flow of blood will lessen the inflammation and give instant relief.

Inhaling the fumes of warm vinegar through the spout of a tea-pot, and warm applications to the throat, when it cannot be scattered, must be resorted to, to favor suppuration.

Mumps.

This is an inflammation of the parotid gland situated at the corner of the jaw, just under the ear. It runs its course in four or five days—is contagious.

Treatment.

The mumps seldom require medical treatment; con-

self and went to bed, as he said, "*to die.*" About half an hour before he died, he desired all to leave him, that he might spend his last moments with God.

Thus, he who had been the *sage in council*, the *storm in war*, and he, who had *filled up the measure* of his country's *glory*, was the *triumphant christian* in the *arms of death*.

finement to the house, warm fomentations, and a dose of salts are all that is necessary in ordinary cases. Beware of taking cold. If the testes become affected use cooling applications and suspend the parts.

Rheumatism

Is an affection of the extremities and external coverings of the body having its seat in the muscles and tendons, and is characterized by pain, stiffness, and swelling of the joints, and in the acute stage, when violent is attended with fever.

It is caused by an exposure to cold and moisture, sleeping in damp beds, putting on damp clothes, and working in damp situations, &c.

Treatment.

If acute, it will be necessary to reduce the system by a good smart dose of salts, and perhaps the loss of blood, either by the lancet, or by cups or leeches. Afterwards give such medicines as will cause perspiration. In order to which let the patient drink freely of bone-set tea, with bottles of hot water at his feet and side, and be well covered in his bed; or ten grains of Dover's powder every four or six hours until relieved of pain. Blisters applied so as to cover the whole affected joint, is one of the most powerful and certain cures. The Thomsonian remedies are sometimes very useful in this disease. The wine of Colchicum or meadow saffron, is considered a very important remedy in this disease. The wine is made by infusing one ounce of the seeds in a pint of wine, (Teneriffe); let it stand fourteen days, occasionally shaking it, and then filter through paper. Dose, one tea-spoonful. The following is a very good formula: Mix together

One tea-spoonful of magnesia,

A tea-spoonful of wine of Colchicum

A wine-glassful of water.

This dose can be repeated three or four times a day.

Rheumatism of long standing is always chronic when the above remedy will be useful—together with sweating medicines. The bowels must be kept open and the diet low. I will be also necessary to shield the parts

affected by cotton-bats, or India rubber cloth. If the joints become stiff, rub them perseveringly, and try to exercise them. This will do much towards restoring them. The following is an excellent counter-irritant :

One pint of rum or whiskey,
Four ounces of ground mustard,
Well mixed, and rubbed on the affected part.

Erysipelas.

This disease is ushered in by symptoms of feverishness, full and frequent pulse. The functions of the brain become disturbed, and drowsiness or confusion of the head, amounting almost to delirium, accompanies the hot stage. On the second or third morning, redness and swelling appear, very frequently on one side of the nose, spreading rapidly to the rest of the face, neck, and shoulders. There is a distressing tingling and heat in the inflamed surface. After a time blisters arise, containing thin, yellow serum, which burst and leave the skin in that part of a livid color. The eyelids sometimes become so inflamed as to close up entirely. The disease is owing sometimes to a hereditary predisposition, or a peculiar organization of the skin.

It prevails more among females than males. It seldom attacks the robust and plethoric, but those who are debilitated by previous disease, unwholesome diet or bad air. Sudden cold applied when the body is overheated, often gives rise to this disorder. It is supposed to be contagious, frequently prevailing in hospitals for the sick. The diseases of the liver are intimately connected with the erysipelas : and a vitiated or suspended secretion of the bile will become the exciting cause in the predisposed, as well as a crude, acrid state of the stomach, especially in the case of children.

Treatment.

An eminent regular physician recommends in the above complaint the following course. Take a full portion of salts every other day, until the fever and redness of the skin is removed. Put half an ounce of cream of tartar to a quart of cold water, and take a wine-glassful every two hours day after day. Never

use poultices, but apply flour dry to the inflamed parts. Keep the skin warm and moist, and one week will cure the fever, and restore the skin to its natural color.

Those who prefer the botanic practice will adopt the following method, which has been remarkably successful. Put the patient to bed, and give a sweat, by putting hot bricks wrapped in cloths wet in vinegar to the feet, sides, and shoulders. Give a lobelia emetic, taking composition powders night and morning afterwards. Drink plentifully of pennyroyal tea. Pursue this course, taking an emetic every other day, till the fever subsides; then give a portion or two of physic. Use no ointments. A plait of wool or soft flannel, is all that is necessary to lay upon the eruption.

Earache.

This is a disease which affects the membrane which lines the inner cavity of the ear. It is a very painful disorder, often producing convulsions, and even delirium.

Causes.

Sudden cold, especially an exposure of the head to the cold, when covered with sweat—a hardening of the wax in the ear, or from any cause which may produce an inflammation. Worms or other insects often get into the ear and cause pain.

Remedy.

If the pain be occasioned by any hard substance in the ear, a few drops of olive oil will relax the membrane; if followed soon after by a few drops of sweet oil and paregoric, it will relieve the pain. If the pain be occasioned by a sudden cold, let some warm tobacco smoke, drawn through a pipe, be infused into the ear. Let the patient's feet be immersed in hot or warm water, and the heart of a roasted onion be placed in the ear, and bound up, and a warm brick be constantly applied. When the feet are taken from the water, bind roasted onions upon the feet. This will seldom fail to give relief.

Weak Eyes.

Those troubled with weak eyes, should make it a

rule to cleanse the bowels thoroughly every fall and spring with epsom salts and sulphur combined, and wash the eyes every morning with pure cold water.

Sore Eyes.

Make a decoction of fresh wild turnip, or of lobelia; strain through a fine cloth, and use it for a wash. Or, dissolve twelve grains of white vitriol, and sixteen grains of sugar of lead in a half a pint of water; or, instead of the water, in three gills of milk and use the whey.

Headache.

Pain in the head proceeds from various causes, and is generally the symptom of some other disease. Indigestion, foul stomach, an exposure of the head to the hot sun, a rush of blood to the head, are the most common causes.

Treatment.

If the pain is occasioned by indigestion, let a pill be taken to open the bowels; if from a foul stomach, take an emetic and sweat, followed by a dose of senna, or oil; if from a rush of the blood to the head, apply leeches, and keep the head cool by laying upon the forehead cloths wet in cold spirit, or vinegar and water. In cases of the common, or sick headache, drink freely of strong thoroughwort tea.

Inflammation of the Eyes.

Symptoms.

The eyes swollen and bloodshot, attended with pain, shedding tears, fever and intolerance of heat.

Causes.

External injuries, such as blows, &c., particles of sand, or other bodies getting into them—exposure to cold—strong light, &c. Nothing is more certain to occasion inflammation of the eyes, than night watching, continued reading or writing by candle light.

Cure.

If the inflammation is occasioned by any substance getting into the eye, it must first be removed ; a very fine paint brush, or a piece of silk, will do to operate with. A small syringe, filled with milk and water, and applied, will often wash it out. This done, reduce the inflammation by keeping the bowels open with epsom salts, and applying leeches near the eye. Let the food be mostly of mild vegetables, and the drink of balm tea.

Convulsions, or Fits.

These generally proceed from overflowing the stomach and bowels with crude indigestible food. Sometimes they precede an eruption, as chicken pox, measles, &c., and from cutting teeth, or tight clothing. If costive, give the child a clyster, afterwards a gentle vomit, and keep the body open by small doses of magnesia or rhubarb, and give a dose occasionally of some warming preparation, as peppermint, or anise seed steeped, and sweetened. If fits proceed from the pain of teething, a little paragoric may be administered, or a tea of valerian, or the scullcap herb.

Heartburn.

This is not a disease of the heart, but an uneasy sensation of heat or acrimony about the pit of the stomach, attended with belching, nausea, and vomiting. When occasioned by a sour stomach, a tea-spoonful of magnesia, or carbonate of soda, in a little water, will relieve. When owing to wind, use anise, coriander, or caraway seeds. When indigestion is the cause, a dose of sweet tincture of rhubarb will give relief. When troubled with hot fumes and vomiting after meals, three parts of saleratus, and one of rhubarb, finely powdered, and a tea-spoonful taken daily in a tumbler of cold water, sipped up in the course of the day, is pretty certain to give relief. It may be tinctured with peppermint or wintergreen. Rhubarb, magnesia, or soda lozenges, are convenient to carry in the pocket for this disorder.

Hydrophobia.

When a person has been bitten by a mad dog, if it be in a fleshy part, and where there is no danger of hurting any large blood-vessel, the parts adjacent to the wound may be cut away. But if this be not done soon after the bite has been received, it will be better to omit it. The wound may be dressed with salt and water, or vinegar and salt, and afterwards dressed twice : day with yellow basilicon mixed with red precipitate of mercury. The blue skull-cap herb has been regarded as a specific for this disorder. It was long used with great success by a man by the name of John Ferris, in Westchester Co., N. Y. About two ounces of the dried herb, when reduced to powder and divided into several portions, is said to be sufficient to cure man or beast, if seasonably given. Dr. Ferris gave it in decoction, after cleansing the bowels with a dose of physic, washing the part bitten with the same. Dr. Ferris told me that he had cured patients by this remedy, even after signs of madness began to appear. See another remedy under the article *Lockjaw*.

Lockjaw.

Sweating, by means of soaking the feet in warm water, or by hot stones quenched in vinegar, is of the first importance in this complaint. Take one ounce of the seed of lobelia, pounded fine, two ounces of cayenne, half a pint of hot drops, to be kept in a bottle for use, to be shaken when used. This will go through the system like electricity. In pouring a little into the mouth between the teeth and cheek, when the jaws are set, it will relax the spasms as soon as it touches the glands at the roots of the tongue, and the jaws will at once become loosened. Give a dose of it as soon as the spasms have abated, and drink freely of pennyroyal tea. Dr. Thompson says he cured three dogs with this preparation, under the most violent symptoms of hydrophobia. One of his agents cured a man who had been bitten by a mad dog. I have not the least doubt, he says, of its being a specific for that disease. It should be taken in tea-spoonful doses, and occasionally repeated.

Jaundice

This disease is occasioned by some derangement in the secretions of the liver, obstructions in the tubes or pipes, or by the bile being so thick that it cannot flow freely into the intestines. In this case, the bile not being appropriated to its natural use, is absorbed into the vascular system, and diffused through the mass of blood and humors, giving a yellow tinge to the urine, the skin, and the white of the eye. The stools become white or ash-colored, from the deficiency of bile to color them, and the bowels costive, from a lack of their natural stimulus.

Medicine.

No medicines are more beneficial in jaundice than emetics occasionally repeated, followed by gentle purges of rhubarb, or epsom salts. Blood root, in tincture, 30 to 80 drops to a dose, has been highly recommended in this disorder. Dr. Thompson recommends giving the composition to raise the internal heat, and emetics of lobelia to cleanse the stomach, and promote perspiration; then give bitters to regulate the bile and restore the digestive powers. When the system is much disordered, it will be necessary to go through regular courses of medicine. Patients have often been cured of jaundice by a long journey, after other means had failed.

Costiveness.

By this disease is meant that irregularity and difficulty in the natural evacuations with which many people are afflicted.

Causes.

Astringent drinks and over exercise—hot cakes made of fine flour—sedentary habits—and lying too long in bed, &c.

Remedy.

In this complaint medicines are of very little use, as a habit is soon formed which cannot be broken up. If they must be taken, we would recommend a little rhubarb as the least objectionable, and best adapted to the purpose. The grand remedy is a proper attention to

diet: let it be moistening and laxative—such as milk, roasted apples and pears, gruels, broths, &c. The bread should be of wheat and rye, or rye and Indian, which is better. Rise early, use the shower bath and exercise freely.

Dyspepsia.

This disease is owing to a variety of causes, the principal of which are overloading the stomach, indulgence in alcoholic liquors, want of air and exercise, mental excitement, and a vitiated state of the bile; and as Dr. Cullen says, the use of tobacco and snuff.

Symptoms,

Among these may be enumerated nausea, heartburn, a sense of fulness, distention, or weight in the stomach, acid eructations, the vomiting a clear liquor of an acid quality, a sensation of sinking or fluttering at the pit of the stomach, and loss of appetite. Sometimes the patient complains of giddiness, and pain in the fore or back part of the head, also pain in the back, with costiveness, difficulty of breathing, palpitation, weakness, and great depression of spirits, attended with a feverish state of the system.

Diet and Regimen,

In a weak state of the stomach, it must have little given it to do. Regard, therefore, must be had, in dyspepsia, to the *quantity* as well as the quality of the food. It should consist in a due mixture of animal and vegetable food, well masticated; but the former should be eaten but *once* a day. In general, when the person is disposed to inordinate indulgence, it will be better to take some food half an hour before the regular meal. Eat slow, and of as few dishes at one meal as possible. Avoid hard, dried, salted, and very fat, fried, and long kept meat, eggs, soups, fat butter, raw vegetables, hot bread, cakes and pastry. Drink but a little at a time, as drinks dilute and weaken the gastric liquors, as also the whole system.

Medicine

Give an emetic to free the stomach from the thick and vitiated muous there, and afterwards a dose of rhu-

barb, epsom salts, or castor oil, if the bowels are irritable and weak. In the latter case, clysters have a good effect. Bitters of a tonic nature may be used moderately, where there is little or no feverishness of the system; but otherwise, mild acid drinks will be more proper. Where there is languor and sinking faintness at the stomach, a little ginger may be taken at meals. Cayenne is also a valuable tonic and stimulant, and very excellent in languid digestion. Absorbents, as lime water, magnesia, and the carbonate of soda, may be combined with other medicines, where there is heartburn, and acidity. The decoction of dandelion taken freely as a common drink, is useful where there is a deficiency of bile. Dr. Kittredge, of Wiscasset, Me., says, that no good can be done in this complaint without producing a free moisture of the skin. Let the patient soak the feet every night in warm water, and drink freely of hot peppermint tea, till a free moisture is brought on from head to foot. Take a bilious pill every night, and two-thirds of a wine-glassful of the following syrup three or four times a day, fasting: Virginia snakeroot, one ounce; life of man root, four ounces; peppermint herb, one ounce; white pine bark, one ounce; boil all together in four quarts to a pint: strain, and add half a pint of Holland gin, and half a pint of molasses, then bottle for use. It may be added that pure air, sea bathing, the shower bath, and free exercise on horseback, in a carriage, or on foot, will tend much to accelerate a cure.

Liver Complaint.

This disease may be known by a pain in the right side, below the ribs, by difficulty of lying on the left side, hard breathing, hoarseness, thirst, loathing of food, a pale or yellow color of the skin and eyes, pain in the shoulders, a dry cough, and a dry, husky state of the skin.

Medicine.

For liver complaint, use the syrup recommended for the dyspepsia, or a strong infusion of Virginia snake-root three times a day. It will produce a fine moisture upon the skin, without which effect a liver complaint

can never be cured. With a dry, husky skin, a man never was and never will be cured of a liver complaint. Bring on a good moisture, and the liver will return to its natural functions, and will go on well. Dr. Kelly of Boston, prescribes a constant use of elder blow tea in liver complaint. It acts both upon the water and perspiration.

The nitro muriatic acid bath is an excellent remedy in liver complaint.

Mix 2 ounce of nitric acid; 2 ounces of muriatic acid; 4 gallons of warm water; and bathe in it every night on going to bed for a week. This preparation will last a week. The extract of dandelion (*Taraxacum*,) in pills the size of a large pea—three a day is a most efficient remedy in chronic liver complaint.

Salt Rheum.

Endeavor to persuade your hands to lie still, for they never can be cured without they do. If there should be much fever and swelling, take a dose of salts every few days, and twice a day use the following ointment, viz: Make a strong decoction of the bark of the root of river willow, skunk cabbage, and blue flag roots; then strain, add a portion of lard to it, and boil down until the water is all evaporated, and when cold, it is ready for use. Anoint the affected parts with this compound.

Asthma.

Make a tincture of lobelia by putting the herb into spirits, and take enough to nauseate the stomach as often as may be necessary. See Indian Tobacco in the Dispensatory of American Botanical Remedies in this book.

Itch or Psora.

This arises from insects, (*animalcula*) which are first produced by uncleanness, and is then propagated by contagion. These insects insinuate themselves beneath the skin and produce small vesicles or festers.

Remedy.

To all insects sulphur is a complete poison, and if the use of sulphur ointment is persevered in, perhaps there is no case but what it will cure.

Take hog's lard four parts and melt it.

Add to the melted lard one part of sulphur.

Apply this ointment five or six nights and it will cure

It will be well to take internally sulphur, or some other gentle laxative at the same time.

Red or white precipitate ointment will also effect a cure if persevered in for two or three weeks. Also,

Corrosive sublimate one drachm,

Rain water one pint.

Or

Sulphuret of potash one ounce,

Rain water one pint.

Or

Castile soap two ounces,

High wines one pint.

Bathe the parts affected with one of these lotions, by means of a sponge or cloth; these lotions are also very useful in other eruptions, *not attended* with inflammation. The object in all prescriptions for the *itch*, is to kill the insects.

Scald Head (Tinea Capitis).

This is known by the falling off of the hair, owing to too great excitement of the vessels of the scalp, which produces, besides, clusters of minute, oozing, red pimples, dispersed over the scalp. This, in the first place, is nothing more than a scurfy, reddened appearance of the scalp. This is a species of *erysipelas*, and is easily communicated from one person to another, by means of a hat or comb, previously used by one so diseased. It is supposed to have its origin in a want of cleanliness.

Remedy.

An ointment of sulphur and soft soap, equal parts, tar, and sulphur ointment, charcoal ointment, or lime-water and sweet oil, in equal parts, are recommended. Common brown soap boiled with oatmeal, and applied as a poultice, will speedily remove the scabs. The head should be frequently washed with castile soap and warm water. Lotions of white vitriol, lunar caustic, or corrosive sublimate; either of these dissolved in water, and their strength regulated by the feelings of the patient, will be very efficacious in curing this filthy and troublesome disease.

Ring-Worm.

A ring-worm is an eruption running in curved lines, generally in a circle, that itches when rubbed, or when the body is heated.

Remedy.

Take tobacco leaves and boil them well, then add vinegar and strong ley to the liquor; wash the eruption often with this, and it will infallibly cure. Anoint several times a day with castor oil is said to be almost a certain cure for ring-worm.

Colds and Coughs.

Colds are the effect of obstructed perspiration. The causes and symptoms of this disease are so well understood that little need be said. Oppression of the breast, stuffing of the nose, weariness, pain in the head, and cough, are the usual attendants. But few diseases are more deserving of attention than this, and yet few are more generally neglected. Many, when they take cold, consider it of no importance, and let it run on, without reflecting a moment on its consequences. Remember that neglected colds are *always* dangerous. A cold produces cough, then comes pain in the side, difficulty in breathing, and finally Consumption. *Cold, COUGH, COFFIN*, are the usual gradations.

Treatment.

Keep the bowels open by pills or salts and senna. Soak the feet in warm water, drink freely of herb tea, and get into a good sweat. Use for the cough a syrup of Life-Everlasting and Boneset, boiled in molasses. If the cough is unyielding and severe, take three teaspoonsful a day of the following mixture:

Tincture of Bloodroot, one ounce; syrup of Seneca, one ounce and a half; syrup of orange peel, one ounce; acetate of opium, half an ounce.

Consumption,

A consumption is a wasting or decay of the whole body, from a diseased state of the lungs. Most consumptive patients date the beginning of their disorder from wet feet, damp beds, night air, wet clothes, or catching cold suddenly after the body had been heated.

Still there are various other cases, as indulging too much in a sitting posture, like tailors, shoemakers and others. It may likewise be owing to a scrofulous taint of the system, to the sudden stoppage of evacuations, or to *undue* evacuations, as sweating, diabetes, nursing too long, &c.

Treatment.

When once the lungs become ulcerated no medicine will heal them. But if the disease be taken sufficiently early, that is before ulceration takes place, much good may be done by a change of climate, a milk diet, exercise on horseback, or a voyage on the salt water. Rice and milk, barley and milk, boiled with a little sugar, is very proper food. Also, ripe fruit roasted or boiled; shell fish, especially oysters eaten raw, drinking the juice with them. Chicken broths and jellies of calves feet, and the like, are very nourishing.

If the patient coughs much or bleeds at the lungs, decoctions made from mucilaginous plants and seeds will be serviceable, as quince-seed, linseed, marsh mallows, slippery elm, and sarsaparilla. A constant drink of tea made of John's wort, has cured many in this stage of this complaint. Inhalations of burning rosin, tar vapor, the vapor from coal pits, &c., have been found beneficial. In many cases, regular courses of Thomsonian medicines have restored the patient. Loose no time in attending to the disorder in season, carefully guarding against sudden transitions of atmosphere, insufficient clothing, indigestible food, sedentary habits, heating liquors, and loss of sleep. In consumption owing to diseased liver, removing to a warmer climate would tend to aggravate rather than mitigate the disease, as the liver would suffer thereby.

Diarrhœa.

By this disease is meant a looseness of the bowels. It ought not to be very suddenly checked, as it is often very salutary.

Remedy.

Take a dose of rhubarb—and drink freely of bone-set, or thoroughwort tea. Bathe the bowels often with

hot drops, and let the diet be a little vegetable food, easy of digestion.

If this does not break up the disease, the following will, in ninety-nine cases out of a hundred Tincture of kino, one ounce ; syrup of rhubarb, half an ounce ; essence of wintergreen, two drachms ; tincture of opium, two drachms. A tea-spoonful of this mixture two or three times a day.

Colic.

Violent pain in the region of the naval, attended with thirst and costiveness. It is brought on by catching cold, eating unripe fruit, windy vegetables, and substances that disagree with the stomach.

Medicine.

Bathe the feet and legs in warm water, apply warm fomentations over the stomach, take a dose of castor oil, and drink freely of peppermit, to which may be added, when in considerable pain, from 30 to 60 drops of paregoric. Clysters must be given if oil does not move the bowels. Painters and others are subject to a species of colic occasioned by working in lead. To prevent this complaint, they should use considerable fat and oily food, and never go to their work fasting. Wearing a flannel round the waist, and the use of ginger tea internally, has proved an excellent preventive of this disorder. In common cases of colic, botanic physicians recommend to give pleurisy root in powder, in tea-spoonful doses, repeating every 15 minutes, or hot drops repeatedly given together with injections, and the usual sweating process.

Cramp in the stomach.

This is a violent spasmodic pain in the stomach, so severe as nearly to occasion fainting ; it is a disease that attacks people very suddenly, and as it is very dangerous, it requires immediate attention.

Remedy.

The patient, if possible, should be put into a warm bath—at any rate, let cloths, dipped in hot water, be constantly kept on the stomach. Take freely the com-

position powders, hot drops, or of strong peppermint. If the pain be very severe take a tea-spoonful or two of paregoric. An injection of spearmint will be useful.

Dysentery.

A sudden check to perspiration is perhaps the most common cause of this disease. When cold gets the ascendancy over the inward heat, it draws all the determining powers inward; the stomach becomes disordered, the digestive powers deranged, the bowels coated with slimy canker, the food is not digested so as to afford nourishment or heat to the system, and all the juices flow inward and pass off by the common passage.

Diet and Regimen.

The diet in dysentery should be light and digestible. The yolk of eggs, barley water, rice boiled in milk, arrowroot, tapioca, sago, adding a little cinnamon, nutmeg, or ginger to render the diet more palatable. The white of eggs, fish of all kinds, broths, fat butter, oil, and spiritous liquors, should be avoided. Good ripe summer fruits are in general very salutary. Swathing the bowels with a flannel bandage is an excellent method, from its warmth and support; and it will be necessary to wear flannel next the skin. Flour boiled with milk and sugar, is an excellent diet where the bowels are weak and sore, and lime water and milk will be found valuable to prevent the prevailing acidity of the bile.

Treatment.

I have often broken up this disease at its commencement, with a good, smart dose of Epsom salts. 10 grains of Dover's powders may be given after the physic has operated, and repeated as often as three times in 24 hours. Dr. Thompson says, that the best plan of treatment is to carry the patient through a regular course of medicine, repeating it, if occasion requires, every day till relieved. During the operation give chicken broth, and after the disease is checked give occasionally a little brandy and loaf sugar, burned together, and drink freely of poplar tea. Keep up the

heat of the system by giving occasionally between the courses, cayenne in a tea of barberry, or hemlock bark, or of raspberry leaves. Steaming, he says, is of great importance in this complaint, and also, injections often administered,

Worms.

The presence of worms may be known by a gnawing sensation about the stomach, disturbed sleep, grinding of the teeth, dry sympathetic cough, offensive breath, nausea, itching about the anus, and slimy stools. It is supposed that a weak state of the digestive organs is that which leads to their production. They may frequently be prevented by taking a simple bitter, as wormwood, or wormseed, the juice dropped on sugar, or the powdered seeds mixed with molasses. Sulphur taken at night, and salt water in the morning, is said to be effectual. Attention must be given to the digestion in this difficulty, pursuing a similar course as for the dyspepsia. A regular action of the bowels to be kept up, and accumulations prevented, by small doses of rhubarb, followed by a drink of camomile tea. Above all, have exercise and pure air.

Bronchitis.

This is a complaint which has of late years become very common among ministers, lawyers, statesmen, and vocalists. It prevails most extensively during the winter months.

In the chronic form of this disease, the application, by means of a sponge, of the Nitrate of Silver, in solution to the part affected, is very efficacious.

20 grains of the Nitrate of silve.

1 ounce of pure water.

Dispensatory of American Botanical Remedies.

It is not to be doubted but that every country contains the best remedies for its own diseases. North America, for its botanical remedial agents, is perhaps exceeded by no other land; and as an old practitioner remarks: "Instead of sending our ships to foreign climes after costly, unnatural medicines, why is it that we do not open our eyes on the vegetable kingdom around us, and accept at our own doors, without money or price, those natural remedies which the God of nature has planted for us, as being more congenial to our constitutions? What, then, is the use, in the name of common sense, of importing Peruvian bark from South America, when the common dogwood (*Cornus Florida*) of our own country produces the same effect? Or of sending to Europe for Spanish flies, when the American potato fly is far superior, and will draw a blister without producing strangury, which the Spanish fly is very apt to do."

In the following, the reader will find briefly described the most important plants and roots, together with their medical properties, and how to use and apply them.

Angelica.

This is well known. It grows in marshy woods and hedges, flowering in June and July, and is frequently cultivated in our gardens. The root of angelica is strengthening and aromatic; it is good for colic arising from wind in the stomach and bowels. One or two tea-spoonsful of the powdered root is a dose. Or it may be used in a decoction, and dogwood berries or bark may be steeped with it. One gill is a dose, three or four times a day.

Alum Root (Heuchera Americana).

- * The root is a powerful astringent, and much better than gum kino, which is brought from Africa. It is used in hemorrhage, or bleeding from weakness, such as flooding, whites, &c. It is good for the gravel, and is used as a gargle for sore mouths. It is proper to be put into spirits, or instead of that, the powder or tea may be given. The Indians apply it to wounds, ulcers, and cancers.

Black Alder (Alnus Nigra)

Grows in moist places, and frequently sends up several slender stalks to the height of ten feet; it bears a red berry. It is tonic and antiseptic, and is therefore good to stop mortification. For this purpose drink a decoction, or tea, of the inner bark, and make a poultice of the same and apply externally. It is sometimes called Virginia winterberry.

Agrimony

Grows two or three feet high, in hedges, &c. It blossoms in July, on long spikes which are yellow, and the seeds of it in the fall of the year are remarkable for sticking to the clothes. Some people call it cuckold. In the form of tea it is a good drink in fevers. The juice of this plant, sweetened with honey, is an excellent medicine in the jaundice, scurvy, and diarrhœa. A wine-glassful of the juice, three times a day, is a proper dose. The herb is applied externally in fresh wounds.

Avens Root (Geum Urbanum)

Grows a foot high, near fences, blossoms in July, white or yellowish, and smells very much like cloves. Two handfuls of the root to a quart of spirits will make a tincture which is an excellent remedy in all cases where tonics are necessary. There is another kind, the *water avens*, the blossoms of which are purplish, and appear in May, but its properties are much the same as the preceding. A decoction of it is good for a sore throat. It is also used as a substitute for tea and coffee.

Asarum, or Swamp Asarabacca.

Grows in low grounds; has but two leaves rising from the root—the flowers are purple and bell-shaped, and proceed from between the leaves. It has a nauseous, bitter taste. From a half to a table-spoonful of the powdered root operates, upwards and downwards. Steeped in boiling water, a table-spoonful may be given every half hour for hooping cough. In the dose of a tea-cupful three times a day it promotes the menses, or *courses*.

Arrow-Root (Maranta Arundinacea).

Is cultivated in the United States, and those who do not cultivate it will find that it is for sale at almost every druggist store. A table-spoonful makes a pint of the finest jelly in nature, and is the most nutritious and harmless food that can be for sick persons, especially in bowel complaints.

To make the jelly, add as much cold water to a tea-spoonful as will make it into a thin paste; then pour on boiling water, stirring it at the same time, till it becomes a clear jelly; nutmeg and sugar, with a little wine or lemon juice, may then be added. But for children it is better to give it with new milk.

Thorn Apple (Datura Stramonium).

It is also called French apple, stink-weed, &c. It grows to the height of two or three feet, flowers in July and August: the apple or pod is large, egg-shaped, and covered with sharp thorns. It has a very disagreeable smell. It is used internally for apoplexy, epilepsy, mania, chronic rheumatism, and difficult menstruation, in the form of an *extract*, which is made by exposing the juice of the plant to the heat of the sun; or, boil the plant in water four hours, strain off the liquor, simmer down to a syrup without taking off the scum, then pour it into an earthen vessel, which is now to be kept in a warm oven until it becomes

thick. The dose is one or two grains once a day, increasing very gradually. It is a very active medicine, and when taken *internally* must be used with the *greatest caution*.

Externally, it is used on fresh wounds, bruises, scalds, burns, piles, ulcers, and cancers, in the form of ointment, which is made by simmering slowly the fresh leaves bruised in hog's lard, with about one-eighth part of beeswax, for one hour, and then straining it through a coarse cloth.

Celandine (Chelidonium).

Grows by running brooks, about two feet high; the stalks have larger joints than are common with other plants, and are very easily broken. It is generally well known. Twenty or thirty drops of the juice, or half a tea-spoonful of the powdered root, in new milk, morning and evening, is a cure for the dropsy, green sickness, and cutaneous eruptions. The juice rubbed on warts, ring and tetter worms, completely removes them. Made into an ointment or plaster, it is a good application for piles, and effectually cures the king's evil.

Bearberry (Arbutus Uva Ursi)

Is a low evergreen shrub, also called whortleberry, and wild cranberry. It relieves the stone, gravel, courses of females, and also catarrhs and consumptions. Make a tea of the leaves, a handful to a pint of water, and take half a pint two or three times a day.

Five Fingers, or Cinquefoil (Potentilla Reptans),

Creeps on the ground, with long slender tendrils like strawberries. The leaves are of five parts, with indented edges: the flowers are yellow; and the root has a dark brown color, long and fibrous. It is a very good tonic and astringent. It relieves urinary complaints, fluxes, sexual weakness, ague, and epilepsy. It is sometimes used instead of tea.

Beech Drops (Orobancha Virginiana).

Cancer root, or broom-rape. It grows under beech trees six or eight inches high, brittle, of a brown color, but no leaves; the root bulbous. It is disagreeably bitter, tonic, and astringent. The fresh bruised root externally applied is celebrated for curing the cancer, ulcers, and St. Anthony's fire. Internally it is good for convulsions, and after physic has been taken for dysentery and diarrhoea.

Crawley, or Fever Root.

It is generally found in the neighborhood of beech drops. It has no leaves; comes up with a single stalk about a foot high, with numerous pods around it that hang downwards, containing, when ripe, an extremely fine seed. The appearance of the root is a curiosity; it is brittle, not so large as a quill, and appears in strata or layers, like hands and fingers on the top of each other, forming a bunch or cluster. The powdered root mixed with molasses, adding a little skunk cabbage and wild turnip root, will cure a cough

when nothing else will do it. After mixing up a tea-cupful, take a tea-spoonful three or four times a day.

Comfrey (Consolida),

Boiled in milk, is excellent in the dysentery, bowel complaints, immoderate courses, and fluor albus. It is beneficial in all cases attended with burning heat in making water. A poultice of the pounded root is good for wounds and inflammatory swellings.

Blood Root (Sanguinaria Canadensis).

It is also called red root, puccoon, Indian paint, &c., and is generally well known. The powdered root, from twenty to thirty grains, is a powerful emetic. In smaller doses, for ulcerous sore throats, croup, and hives, it is equal to the Seneka snake-root; and one or two grains every two or three hours is an excellent diaphoretic in colds, pleurisies, &c.

Wild Turnip (Arum Tryphyllum).

Indian turnip, Dragon root, wake robin, or cuckoo paint. By some of these names it is well known to every one. Its virtues are destroyed by drying, and by too much pounding. To use it as a medicine it should be scraped, and mixed with something oily, sweet, and mucilaginous. It is useful to old people, in cases of asthma, coughs, &c. It is good for women who are not regular, and a decoction of the root is used for eye-water.

Dandelion (Leontodon Taraxacum).

A decoction of dandelion will correct an unhealthy state of the stomach and liver, and procure an appetite. It is diuretic, and very beneficial in jaundice. Given in the form of extract in from three to five grain doses, three times a day, and continued for a long time, has the happiest effect upon the liver when its disease has assumed a chronic form.

Blackberry.

The berry when ripe is known to be pleasant and wholesome, and two handfuls of the roots in three pints of milk, or water boiled down to a quart, in the dose of a tea-cupful every two or three hours, has often cured diarrhœa and dysentery, when the apothecary's medicine had failed.

Elecompane (Inula Helenium).

In the form of strong tea, made by boiling, it is good for hoarseness, coughs, stoppage of urine, or of the courses of females. It is also good for spitting blood, to destroy worms, and to fasten loose teeth.

Fever-few, Feather-few (Pyrethrum Parthenum),

Is an aromatic tonic. A decoction of the herb, in hysterics, and other female complaints, may be used to advantage

Wintergreen (*Gaultheria Procumbens*).

Mountain tea, deerberry, ground ivy, spiceberry, are different names for the same thing. It is useful in spasmodic asthma, in urinary, and in female weaknesses. It relieves cramp from wind in the stomach, and the juice boiled with sweet oil, wax and turpentine, makes a salve, which is used to heal wounds.

Indian Tobacco (*Lobelia Inflata*)

Is generally well known. It rises up one or two feet with branched stems, and the flowers, of a pale blue color, appear in July and August. The capsules or pods are inflated, and filled with small seeds. Says the U. S. Dispensatory, by Wood and Bache, *Lobelia* is emetic, and like other medicines of the same class, is occasionally cathartic, and in small doses, diaphoretic and expectorant. It is also possessed of narcotic properties. The disease in which it has proved most useful is spasmodic asthma, the paroxysms of which it often greatly mitigates, and sometimes wholly relieves, even when not given in doses sufficiently large to produce active vomiting." In Cox's Dispensatory, page 400, the Rev. Dr. Cutler says: "I had a tincture made from the fresh plant, (*Lobelia Inflata*); and took care to have the spirit fully saturated, which, I think, is important. In a paroxysm of the asthma which perhaps was as severe as I ever experienced, the difficulty of breathing extreme, and after it had continued for a considerable time, I took a table-spoonful. In three or four minutes my breathing was as free as ever it was, but I felt no nausea at the stomach. In ten minutes I took another spoonful, which occasioned sickness. After ten minutes I took a third, which produced sensible effects upon the coat of the stomach, and a very little moderate puking, and a kind of prickly sensation through the whole system, even to the extremities of the fingers and toes. The urinary passage was perceptibly affected, by producing a smarting sensation in passing urine, which was probably provoked by stimulus upon the bladder. But all these sensations very soon subsided, and a vigor seemed to be restored to the constitution, which I had not experienced for years." It will not always do to take as much for a dose as Dr. Cutler did, as some have been severely puked with only a tea-spoonful.

Burdock (*Arctium Lappa*)

Operates gently on the bowels, sweetens the blood, promotes sweat and urine, and is used in rheumatic, scorbutic, and venereal diseases. Dose of the juice, a wine-glassful; of the decoction, half a pint, three times a day.

Thoroughwort (*Eupatorium Perfoliatum*).

Boneset, Crosswort, Thoroughstem, or Indian Sage, and is so generally known by one of these names, that it needs no description. A wine-glassful every two hours of the warm decoction is beneficial in fevers, by exciting a copious perspiration. In larger doses it proves emetic, and in this way it is an excellent remedy

for the ague, to be given when the fit is coming on. When taken cold, in small doses, it is very strengthening to the stomach; and the flowers, especially, are as good a tonic bitter as the camomile flowers.

Queen of the Meadow (Eupatorium Purpureum)

It is also called *trumpet-weed*, *gravel-weed*. It grows in hedges, and on the sides of meadows, about four feet high; the stalk is reddish, the flowers purple: the leaves are long, spear-shaped, and opposite each other. A large handful of the roots boiled in three pints of water, down to a quart, and given in doses of a tea-cupful every two hours, is an excellent remedy in the gravel, bloody urine, and suppressions of urine; it strengthens the urinary organs, and carries off the water in dropsy.

Pleurisy Root (Asclepias Decumbens).

Some call it *white-root*, *wind-root*, *flux-root*, *butterfly-weed*, *harvest flower*, &c. It is a beautiful plant, growing two or three feet high under fences, and on upland pastures. The flowers are of a bright orange color, and appear in July and August. These are succeeded by long, slender pods, with a delicate kind of silk attached to them; the root is spindle, or carrot-shaped, of a light brownish color outside, and white within. No medicine is better than this in producing general and plentiful perspiration, without heating the body, and from this it derives its well-merited fame in curing pleurisy, inflammation of the lungs, liver, and dysentery; but in these acute diseases, the stomach and bowels should first be cleansed by a smart dose of physic or emetic. A handful of the root is then to be steeped in a quart of boiling water, and a tea-cupful given every two or three hours.

Sweet Flag (Acorus Calamus).

This is known by everybody by the name of *Calamus*. It is good for wind colics in children, where there is no fever.

Broad-Leaved Laurel (Kalmia Latifolia)

Grows seven or eight feet high, in swamps, and moist rocky pastures. The blossoms are white, and tinged with red. An ointment made by simmering the leaves in lard, is good for scald head, obstinate sores, and has often cured the itch. There is another species called narrow leave, or dwarf laurel. Both kinds are poisonous.

Cicuta, or *Poison Hemlock* (Conium Maculatum),

Grows from three to six feet high, in moist and shady places, resembling parsley, but the root resembles the carrot. The stalk is round, smooth, hollow, and marked with reddish, or brown spots. The under side of the leaf is whitish green, the upper side dark green. The flowers are white, heart-shaped, and consist of five leaves. The seed is greenish, flat on one side, convex on the other, and the convex side is marked with five furrows. The

smell of the plant resembles the urine of a cat. It is of a narcotic nature, and when taken in an over dose is a deadly poison. It is used in fluxes, epilepsy, chronic rheumatism, jaundice, cutaneous affections, rickets, swelled testicles, cancer, scrofulous affections, &c. The dose is from one to three grains a day of the leaves, gradually increasing, until it produces giddiness. The leaves should be collected in June, dried quickly before a fire on tin plates, and kept in well stopped vials, secluded from the light. It may also be given in extract. Dose, two or three grains twice a day, gradually increased until evidence of its action upon the system is afforded.

American Gentian.

It grows on the side of roads, in waste pastures, two or three feet high. The stem is strong and erect, and the leaves are spear-shaped, somewhat like common milk-weed. But the leaf surrounds the stalk like thoroughwort, and at the junction of the leaf with the stalk, on the upper side, yellow flowers appear which terminate in bitter berries, containing the seed. It is better than imported gentian; not only is it a tonic, but it corrects unhealthy secretions, and produces that healing effect upon the lungs and liver, which no other medicine can do.

Dwarf Elder.

This plant dies every year, and rises afresh in the spring, with a four-square, rough, prickly stalk, three or four feet high. The flowers are white, with a dash of purple, standing in umbels on the top of the stalk, and terminating in reddish or dark colored berries. The root creeps under the upper crust of the ground, as large as the finger, and springs up again in different places. It colors the hair black: is a powerful diuretic, and has acquired great fame in curing the dropsy. It is used in decoction.

Sampson Snake-root.

Grows from one to two or three feet high; the leaves are dark green, and very smooth on the under side. It blossoms about the last of August or the first of September, bearing circular, pale blue flowers on the top of the stalk. The roots are fibrous, of an agreeable taste, running near the surface, from which in the fall red sprouts are found shooting up to form the stalk. It is used in debility of the nervous system; a wine-glassful of the tincture, or more of the decoction, three times a day.

Dogwood

Grows fifteen or twenty feet high, bearing large white flowers, and is well known. It is a powerful tonic, and is equal to the Peruvian bark. The bark is used for the ague, either pulverized, or in tincture, or decoction; and the Indians make use of the flowers for the same purpose.

Rose Willow.

Grows on the banks of brooks or rivers, or borders of meadows, about the size of an apple tree, with a bunch in the top resembling

a bunch of roses; gray colored bark outside, red within. A large handful of the bark boiled in three pints of water, down to a quart, is used for the gleet, whites, immoderate flowing of the menses, and cutaneous eruptions.

Oak Bark

Either black or red oak bark is tonic, astringent, and powerfully antiseptic. It is good in all cases where Peruvian bark is good, and may be used in decoction internally, and externally.

Mallows.

Grows in almost every door-yard. There are two kinds, but the properties of both are the same. It is mucilaginous, and useful in dysenteries, gravel, stranguary, and scalding urine.

Mustard.

The pulverized seeds are a diffusible stimulus. When taken whole, in the dose of a table-spoonful or more, they produce a gentle evacuation, without weakening the stomach and bowels.

Tobacco

It is emetic, cathartic, sudorific, diuretic, expectorant, narcotic, and anti-spasmodic. Two or three tea-spoonful of tobacco infusion, mixed with half a pint of gruel, and used as injection, will afford relief in violent colics, when the bowels cannot be moved by any other physic.

Fox Glove

It grows to the height of two or more feet, and its leaves are large, egg-shaped, notched like a saw, and covered with hairs. The blossoms are of a beautiful purple color, hanging downwards in a row along one side, which are compared with the fingers of a glove, and in the inside are elegantly mottled with spots like little eyes. When taken in large doses, digitalis produces vomiting, purging, dimness of sight, vertigo, delirium, hiccough, convulsions, collapse, and death. *Cordials and stimulants are the best antidotes.* As a medicine it diminishes the frequency of the pulse, lessens the irritability of the system, increases the discharge of urine, and the action of the absorbents. In small doses, therefore, it is good for inflammatory complaints. Externally it has been applied for scrofulous tumors. The powdered leaf may be given internally, one grain twice a day, gradually increasing until it produces some effect, and then stop. Or a decoction may be used about as strong as common tea, in the dose of a tea-spoonful every two or three hours. It is cultivated in some of our gardens.

Camomile.

A warm decoction of the flowers in large quantities, will act as an emetic; in small doses, taken cold, it is an excellent tonic to strengthen the stomach.

Deadly Nightshade (Atropa Belladonna).

Grows two or three feet high among rubbish, and uncultivated places. The berries are very plump and round, first green, then

changing to red, and when ripe of a shining black. This poisonous plant has performed great cures in palsy, epilepsy, jaundice, dropsy, and cancer. A half a grain of the powdered root or leaves is sufficient to begin with. Or, infuse twenty grains in a pint of boiling water; strain it when cool; and one or two table-spoonsful once a day is a dose. The leaves are applied externally to the cancerous tumors and ulcers.

Bittersweet (Solanum Dulcamara).

Grows in hedges, and climbs upon other bushes with winding, woody stalks. The flowers are in clusters, of a blue purple color, appearing in June and July, and always turning against the sun. The berries are red. It operates by sweat, urine, and stool, and is good in acute rheumatism, jaundice, scurvy, obstruction of the menses and cutaneous disorders. A tea-cupful of the tea may be taken twice a day. Or, steep four ounces of the twigs in a pint of wine; dose, a wine-glassful. The leaves boiled in vinegar, adding a little flaxseed, make a good poultice for hard swellings. An open cancer has been cured by applying the juice and leaves.

Colt's Foot (Asarum Canadense).

Is generally known. Boiling injures it. Better put it into spirits. A strong tea, made by steeping, brings out a moisture on the skin, and strengthens the stomach.

Mandrake, or May Apple (Podophyllum Peltatum).

Needs no description. It is an excellent purgative, in doses from ten to thirty grains, or double that quantity infused in a gill of water, or equal quantities of the mandrake juice and molasses may be mixed, and a table-spoonful taken every hour or two until it operates. The Indians gather the root in Autumn, when the leaves turn yellow, dry it in the shade, and pulverize it for use.

Rhubarb Root (Radix Rhei).

It is generally cultivated in our gardens for the sake of the stalks, which are made into excellent pies; the root, however, is of the same kind of rhubarb as that which is imported from Asia. Small doses of rhubarb, from six to ten grains, are astringent and strengthening to the stomach. In larger doses, from a scruple to half a drachm, it is first purgative, and then astringent. It is, therefore, an excellent medicine for diarrhoea and dysentery, because it evacuates any acrid matter that may be offending the bowels, before it acts as an astringent.

American Ipecac, or Indian Physic (Spiraea Trifoleata).

Grows about two or three feet high in low woods and meadows, and is very common in all parts of the country. It is equal to foreign ipecac. Thirty or forty grains of the pulverized root act as an emetic; in the dose of five or six grains every two hours it acts as a sudorific. Or, a handful of the fresh root may be infused in a pint of boiling water, and a small tea-cupful taken every fifteen or twenty minutes, until it produces vomiting.

Wormwood (Artimisia Absinthium),

Is also well known. A handful to a quart of boiling water in the dose of a tea-cupful, or a tea-spoonful of the powdered leaves three times a day, is excellent for worms, hysterics, weakness of the stomach, difficult menstruation, intermittents, jaundice and dropsy. Externally, as a poultice, it is good for bruises, &c.

Tansy (Tanacetum Vulgare),

Relieves hysterical affections. A wine-glassful of tansy juice will throw off an ague fit if taken a few minutes before the attack.

Skunk Cabbage,

Grows ten or twelve feet high, by the side of rivers, lakes, or ponds. The berries hang in bunches, about the size of a white bean, containing a kind of stone. and when ripe they are black, of a sweetish taste. In the hectic fever attending complaints of the lungs and breast, a tea made of the bark is more effectual as a febrifuge than anything else yet known.

Sanicle, Black Snake-root (Sanicula Marilandica).

It is a cordial, stimulating, and diaphoretic medicine, and is used in complaints of debility to renovate and strengthen the system. It is generally found in meadows, bears a number of burs on the top, the root is dark colored, and has an agreeable strong smell.

Poplar (Liriodendrum Tulipifera).

Poplar bark is a very strong, bitter tonic, and aromatic. It is used in the ague; in dysentery, after the bowels are cleansed by physic; and, finally, in all cases of debility it has the same effect as Peruvian bark.

Slippery Elm (Ulmus Americana).

By infusing the bark in water it produces a nourishing jelly, which is capable of supporting life without any other food. It is beneficial in fevers; and Dr. Grant, who acquired great celebrity in the cure of dysentery, has declared that he is indebted for that reputation to the use of this mucilaginous jelly. Externally applied it prevents mortification; and as an emollient poultice for swellings, it is better than bread and milk, or flax-seed.

Sumach, or Shoemake (Rhus Capallinum).

It is well known. An infusion or tea of the seeds, sweetened with honey, makes a good gargle for sore throat, and for cleansing the mouth in typhus fever. The inner bark of the root in decoction, externally as a wash, or taken internally, is one of the most powerful vegetable antiseptics which our country produces. It is frequently used in hectic scrofulous complaints.

Pokeweed (Phytolacca Decandra).

It is very active and operates as an emetic and cathartic. If an ounce of the root be steeped in a pint of wine, two table-spoonfuls will operate well as a puke. In smaller doses it is an excellent

remedy for rheumatism, and it cures the venereal disease without mercury. A decoction of the leaves is used externally for the piles, and an ointment made by simmering a handful of the root or leaves in a pint of lard, adding a little beeswax, is applied to cancers and ulcers.

Horse Radish (Cochlearia Armoracea),

Is an anti-scorbutic and stimulating medicine. It may be taken either in substance or infused in wine, for the scurvy, dropsy, palsy, chronic rheumatism, &c. An infusion of horse radish in milk is the best cosmetic for the ladies, and steeped in vinegar it removes freckles from the face.

American Senna (Cassia Marilandica),

Grows well in this country, is very easily raised from the seeds, and ought to be cultivated in every garden. It is well known as a physic for children; a handful of the leaves to a pint of hot water, and a tea-cupful or less every hour or two, till it operates.

Oak of Jerusalem, or Wormseed (Chenopodium Anthelmenticum).

This is a vermifuge or anthelmintic medicine, (that is good to destroy worms). A table-spoonful of the juice of the plant expressed or squeezed out is a dose. The seed may be boiled in milk; give a wine-glassful. Or one or two tea-spoonsful of the seed itself may be mixed with molasses or honey, and given to a child two or three years old, on an empty stomach, twice a day, and continued several days.

King's Evil Weed.

Grows in the woods, somewhat like a plantain, but the leaves are smaller, spotted green and white, and a single stalk runs up from the middle of the plant six or eight inches high, bearing on the top a small round bud. It is considered an infallible cure for King's evil. Make a poultice of the whole plant, and apply it to the swelling, and use a tea of the same for constant drink.

Gravel Weed.

Grows on dry land where wintergreen is found. The stalk rises not much from the ground, but runs along and takes a new root. The leaf is oval, of a pale green, thick and rough, but not hairy, as wide as a spoon bowl, but not so long, and bears a small white blossom. It grows in little beds or mats, like canomile, with the leaves thick together, almost one on the top of the other. It is injured by boiling. An infusion of the leaves and vines in hot water, is said to be an effectual cure for gravel in the kidney, or stone in the bladder. The use of it must be continued for some time.

Yellow Dock

Is very effectual in cleansing the blood of humors. An open cancer has been cured by applying the narrow-leaved dock as a fomentation and poultice, and by drinking each day from a pint to a quart of the decoction.

Sarsaparilla (*Smilax Sarsaparilla*).

It is good for impurity of the blood, and is used for scrofula, rheumatism, disorders of the skin, &c. If used in decoction, a large handful of the root may be boiled away one third in a quart of water, or two drachms of the powder, or one of the extract, may be given three or four times a day.

Sassafras (*Laurus Sassafras*).

It is an aromatic or pleasant tonic. Sassafras, prickly ash, dog-wood, and American gentian, make as powerful and as pleasant a bitter as the foreign gentian, colombo, Peruvian bark, cloves and cinnamon, that we buy at the Druggist's store.

Blue Flag (*Iris Pseudacorus*),

Grows by the brink of rivers, in swamps, and meadows; blossoms in July; blue flowers, variegated with white, yellow, and purple. A tea-spoonful of the juice, diluted with water is an active cathartic, and the decoction for constant drink is used in venereal complaints.

River Willow.

An ointment to cure the salt rheum is made from the bark of this root, blue flag, and skunk cabbage roots.

Rattlesnake's Plantain

Grows in almost every meadow. The leaf is more notched and smaller than the common plantain, and the root has a hot, peppery taste. A poultice of the fresh pounded leaves is celebrated for curing the bite of a rattlesnake.

Ladies Slipper

Is well known. A decoction of the root is febrifuge (to drive away fever), and a fine regulating medicine in female complaints.

Lungwort (*Lichen*),

Is a thin shell or skin resembling the lungs, which grows on the bark of the white oak tree. A handful to a quart of boiling water, may be used as a common drink for consumption and hooping cough.

Tag Alder.

The bark of the roots boiled in cider, is the best thing to cleanse the blood in the spring of the year. Take a tea-cupful every hour or two, until it operates as physic.

Beth Root (*Trillium Rhumboidum*),

Grows about a foot high, three oval leaves at the top of the stalk, and one flower of a purple color, bell-shaped, which produces a small berry, containing the seed. The root is brown, bulbous, and full of small fibres. It is tonic, astringent, and antiseptic. A tea-spoonful of the powdered root three or four times a day, is used in spitting blood, immoderate courses, and bloody urine. A poultice of the root is applied to putrid ulcers, and to stop mortification.

Blue Cohosh (Caulophyllum Thalictroides),

Is an excellent remedy in rheumatism, dropsy, and obstructions of the menses or courses. A handful of the root to a quart of boiling water—drink a tea-cupful three or four times a day. Or put the same quantity in a quart of spirits, and take a wine-glassful two or three times a day.

Ground Pine (Arthetica),

Grows in stony lands, about six inches high, sends out many small branches, with small, narrow, grayish leaves, somewhat hairy, flowers, of a pale color, growing from the joint of the stalk among the leaves, terminating in small round husks. It is used for the same purpose as blue cohosh. Steep a handful of the leaves and flowers in a pint of wine, and take a wine-glassful two or three times a day.

Butternut Tree (Ingans Cinerea),

For diarrhœa, dysentery, and costiveness, it is about the best physic that grows. The bark of the root should be collected in May or June; after cleaning, cutting, and bruising, should have eight times its weight of water added to it; it should then be boiled to one half, strained through a thick cloth, and afterwards evaporated to the consistence of thick honey, at such a distance from the fire that it shall not be burnt in the least. It may then be dried in a warm oven until it will pill; take from three to five pills the size of a pea.

Valerian (Valeriana Officinalis).

Grows abundantly near the Ohio river, two or three feet high; the leaves are in pairs, large, hairy, and of a dusky green color. The flowers stand in large tufts on the tops of the branches, of a pale, whitish red color. The root consists of a number of slender fibres, matted together, and attached to one head; it has a brown color, and strong, unpleasant smell. Valerian root has long been recommended by the most learned physicians as a medicine of great use in debilities of the nervous system, especially in hysterics and hypochondriasis. Boiling injures it. The common dose is from a scruple to a drachm in powder.

Peach Tree (Amygdalus Persica).

Both the leaves and flowers are excellent physic, and can easily be gathered by every family. A tea-spoonful of a strong infusion with boiling water, sweetened, and taken every hour or two, will operate mildly on the bowels, without griping as senna does. Grown persons may take of the infusion from a gill to half a pint, once in two or three hours.

Milkweed (Vincetoxicum).

It is sometimes called silk weed, and is well known. A decoction of the root in doses of a gill or more, three or four times a day, has the reputation of being an effectual cure for dropsy, and beneficial in gravel, scrofula, and rheumatism.

Hops (Humulus Lupulus),

Contain an aromatic, an astringent, a tonic, and a narcotic principle. The first three are obtained by infusion (steeping) in water. The second and third are also obtained by decoction, (boiling), but the first, or aromatic principle is then destroyed, or driven off, and the fourth, or narcotic principle is not obtained by steeping or boiling. As alcohol or spirits, extracts all its virtues together, it is better, perhaps, either to take the tincture, from a half to a whole drachm once or twice a day, or the substance itself, in powder, in the dose of three grains. It is given as an anodyne in rheumatism and gout; a pillow of hops is used to procure sleep; and an ointment of the same has relieved the violent pain of cancer when all other applications were ineffectual.

Ergot, Smut Rye, or Spurred Rye (Secale Cornutum).

Flooding has been checked, and suppression of the courses has also been removed by Ergot. Boil gently thirty grains of the powder in half a pint of water, and give one third of it every twenty minutes to bring on effectual pains in lingering labors. When the pains commence discontinue it.

Charcoal of Wood (Carbo Ligni).

In fifteen or sixteen cases of obstinate constipation of the bowels, Dr. Daniel, of Georgia, administered three table-spoonsful of pulverized charcoal every half hour, and in about seventeen hours the bowels were freely evacuated. It is slow, but sure. A table-spoonful two or three times a day will remove costiveness. In smaller doses it corrects a bad breath, and prevents putrid belching of wind from the stomach. It is a powerful antiseptic, or anti-mortification remedy.

Peppermint (Mentha Piperita),

Is a diffusible stimulant, good in flatulent colics, hysterics and vomiting. In cholera morbus, peppermint steeped in spirits, and the herb applied hot to the stomach and bowels, will stop the puking, so that physic can be kept on the stomach.

White Poppy (Papaver Somniferum).

The milky juice that exudes from the poppy, by drying away in the sun, becomes pure opium. A decoction of the plant, especially of the capsules, or heads, boiled down to an extract, has the properties of opium, though it is not so powerful. A strong decoction of dried poppy heads, adding half the quantity of sugar or honey, and then simmered slowly for an hour, is an excellent anodyne for coughs, and breast complaints, in the dose of a table-spoonful.

Sweet Fern (Polypodium, or Comptonia Asplenifolia)

Grows in woods and stony places, flowers from June to October, and is well known. It is a powerful medicine to expel the tapeworm, in the dose of a pint a day of the decoction or one or two

tea-spoonful of the powder; to be followed on the fifth day by a dose of some kind of physic. It is also good in chronic rheumatism, and a wash of it is considered beneficial in St. Anthony's fire, and other cutaneous affections.

Meadow Saffron (Colchicum Autumnale),

Is of a purgative, emetic, diuretic, and anodyne nature. The bulb of the root and the seeds are used in gout, rheumatism, asthma, and dropsy. Colchicum root is distinguished by a small projection, like a nail or peg on one side at the bottom part of the bulb, which makes it totally different from every other bulbous root. In July it is to be dug, sliced, and dried for use. An ounce of the seed to a pint of wine—macerate for fourteen days, and filter through paper. Dose, one tea-spoonful. The dose of the dried bulb is from two to eight grains, which may be repeated every four or six hours, till the effects of the medicine are obtained.

Prickly Ash (Aralia Spinosa).

A watery infusion of the inner bark is a good sudorific (sweating) medicine, and removes the pains of chronic rheumatism. The berries, which are sometimes called Indian cloves, are used in the form of tincture (with spirits) for the toothache.

Witch Hazel (Harmamelis Virginiana).

The habits of this well known shrub are very singular; it blossoms in the fall after its leaves are destroyed by frost, and the fruit thus exposed to the severity of winter, is not injured at all, and does not ripen until autumn the next year, when it flowers again; and then ripe fruit and blossoms will be found on the same tree. The twigs and flowers in decoction are esteemed a valuable tonic, the virtues of which are similar to those of good wine. Externally applied the bark is sedative (soothing) and discutient (scattering or driving). A poultice of the inner bark is good for inflamed eyes, and the Indians make use of it to remove painful tumors, and other external inflammations.

Directions for Collecting and Preserving Vegetables.

Roots

Should be gathered before the sap rises in the spring, or after it returns in autumn, and taken from the driest land where they grow. In washing, let them remain in the water as short a time as possible, or, dry them without washing, and clean with a brush afterwards. Those which lose their virtue by drying may be kept in dry sand.

Leaves and Flowers

Should be gathered in dry weather, after the dew is off, and while they are in full vigor. They may be tied in small bundles and hung up to dry; but the better way is to dry them quicker, by the gentle heat of a stove or fire-place.

Seeds and Fruits

Are generally to be gathered when ripe; *Sprouts*, before the buds are open; *Stalks* in autumn, and *Barks* in spring and autumn.

Flour Albus, or Whites.

For a wash which must be used with a female syringe,
 1 drachm of white vitriol,
 10 grains of sugar of lead,
 1 pint of rain water.
 Syringe three times a day.

For young females the following is an excellent remedy:

7 drachms Tincture Guaiac,
 7 do. compound Tincture of Aloes,
 2 do. Tincture of Muriate of Iron.

Dose, a tea-spoonful three times a day in a gill of sweetened water. Immediately afterwards take a wine-glassful of strong hop tea.

NOTE.—The above mixture is almost a sure remedy in obstruction of the monthly courses of females.

Turn of Life.

Keep the bowels free from costiveness by taking two tea-spoonful of white English mustard seed, whole, three times a day. If giddiness and occasional pains in the head, leeches to the temple will be found very beneficial; and if ulcers should break out on any part of the body, they ought by no means to be healed up, unless a drain, by means of a seaton or issue, be established in some other part.

Warts.

Frequently wash them with a strong decoction of oak bark, or wet lunar caustic and rub it on the wart a few times.

END.

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PREFACE.

THE value of a Book of useful Recipes, for domestic use, is inestimable. Properly prepared, and arranged in accordance with the wants and tastes of those to whom it is addressed, it becomes a **Hand-Book of Economy** and a **Self-Instructor** in a spacious department of useful knowledge—a *time-saving*, and a *money-saving* implement—performing its duties “without money and without price.”

In the arrangement of the following pages, we have aimed to make the work eminently *practical*, and have therefore omitted many things which we find in other works of this class, that do not bear the stamp of *utility*. We are thus enabled to comprise within the compass of this volume, much more that is **strictly useful**, than can be found in any of its predecessors. We have introduced such subjects only, as may be made subservient to the wants and tastes of a frugal household. We have drawn copiously from large and expensive works, and have added thereto such other recipes for family use as we have met with in a course of reading and observation.

So varied are the subjects, that the compiler found it difficult to arrange them under specific heads. But this seeming defect is entirely obviated by the copious Index, alphabetically arranged. With these few remarks we send it forth, confident that it will meet a welcome reception in every family where enlightened economy is a controlling principle.

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To Extract Grease Spots from Silks, and Colored Muslins, &c.

Scrape French chalk, put it on the grease-spot, and hold it near the fire, or over a warm iron, or water-plate, filled with boiling water. The grease will melt, and the French chalk absorb it; brush or rub it off. Repeat if necessary.

To take Stains out of Silk.

Mix together in a phial, 2 oz. of essence of lemon, 1 oz. of oil of turpentine.

Grease and other spots in silks, are to be rubbed gently with a linen rag dipped in the above composition.

To take Spots of Paint from Cloth, Silks, &c.

Dip a pen in spirit of turpentine, and transfer it to the paint spot, in sufficient quantity to discharge the oil and gluten. Let it stand some hours, then rub it.

For large or numerous spots, apply the spirit of turpentine with a sponge, if possible before it is become dry.

To Scour thick Cotton Counterpanes.

Cut a pound of mottled soap into thin slices; and put it into a pan with a quarter of an ounce of pot-ash, and an ounce of pearl-ash. Pour a pail of boiling water on it, and let it stand till dissolved. Then pour hot and cold water into a scouring tub, with a bowl of the solution. Put in the counterpane, beat it well, turn it often, and give it a second liquor as before, then rinse it in cold water. Now put three tea-spoonsful of liquid blue into a thin liquor; stir it, and put in the counterpane: beat it about five minutes, and dry it in the air.

To Scour Clothes, Coats, Pelisses, &c.

If a black, blue, or brown coat, dry 2 ounces of Fuller's earth, and pour on it sufficient boiling water to

dissolve it, and plaster with it the spots of grease ; take a small quantity of bullock's gall, mix with it half a pint of stale urine, and a little boiling water ; with a hard brush dipped in this liquor, brush spotted places. Then dip the coat in a bucket of cold spring water. When nearly dry, lay the nap right, and pass a drop of oil of olives over the brush to finish it.

To Scour Carpets, Hearth-Rugs, &c.

Rub a piece of soap on every spot of grease or dirt, then take a hard brush dipped in boiling water, and rub the spots well. If very dirty, a solution of soap must be put into a tub, with hot water, and the carpet well beat in it, rinsing it in several clean waters, putting in the last water a table-spoonful of oil of vitriol, to brighten the colors.

To Bleach Wool, Silks, Straw Bonnets, &c.

Put a chafing-dish with some lighted charcoal into a close room, or large box ; then strew an ounce or two of powdered brimstone on the hot coals. Hang the articles in the room or box, make the door fast, and let them hang some hours. Fine colored woollens are thus sulphured before dyed, and straw bonnets are thus bleached.

To take Iron-Moulds out of Linen.

Hold the iron-mould on the cover of a tankard of boiling water, and rub on the spot a little juice of sorrel and salt, and when the cloth has thoroughly imbibed the juice, wash it in ley.

To Cleanse Feathers from Animal Oil.

Mix well with a gallon of clear water, a pound of quick lime ; and, when the lime is precipitated in fine powder, pour off the clear lime-water for use, at the time it is wanted. Put the feathers to be cleaned in a tub, and add to them a sufficient quantity of the clear lime-water, so as to cover them about three inches. The feathers, when thoroughly moistened, will sink down, and should remain in the lime-water for three or four days ; after which, the foul liquor should be separated from them by laying them on a sieve. Afterwards, well

wash them in clean water, and dry them on nets, about the same fineness as cabbage nets. Shake them from time to time, on the nets; as they dry, they will fall through the meshes, when collect them for use. The admission of air will be serviceable in the drying, and the whole process may be completed in about three weeks. The feathers, thus prepared, want nothing further than beating, to be used either for beds, bolsters, pillows, &c.

To make Scouring Balls.

Portable balls for removing spots from clothes, may be thus prepared. Fuller's earth perfectly dried, (so that it crumbles into a powder,) is to be moistened with the clear juice of lemons, and a small quantity of pure pearl-ashes is to be added. Knead the whole carefully together, till it acquires the consistence of a thick elastic paste. Form it into convenient small balls, and dry them in the sun. To be used, first moisten the spot on the clothes with water, then rub it with the ball, and let the spot dry in the sun; after having washed it with pure water, the spot will entirely disappear.

To Clean Marble.

Take verdigris and pumice-stone, well powdered, with lime newly slaked. Mix with soap lees, to the consistence of putty. Put it in a woollen rag, and rub the stains well one way. Wash off with soap and water. Repeat, if not removed.

To Take Stains out of Silver Plate.

Steep the plate in soap lees for the space of four hours; then cover it over with whiting, wet with vinegar, so that it may stick thick upon it, and dry it by a fire; after which, rub off the whiting, and pass it over with dry bran, and the spots will not only disappear, but the plate will look exceedingly bright.

To make Plate look like New

Take of unslaked lime and alum, a pound each, of aqua-vitæ, and vinegar, each a pint, and of beer grounds, two quarts; boil the plate in these, and they will set a beautiful gloss upon it.

To take out Fruit Spots.

Let the spotted part of the cloth imbibe a little water without dipping, and hold the part over a lighted common brimstone match at a proper distance. The sulphurous gas which is discharged, soon causes the spot to disappear.

To Clean Gold Lace and Embroidery.

For this purpose no alkaline liquors are to be used; for while they clean the gold they corrode the silk, and change or discharge its color. Soap also alters the shade, and even the species of certain colors. But spirit of wine may be used without any danger of its injuring either color or quality; and, in many cases, proves as effectual for restoring the lustre of the gold, as the corrosive detergents. But, though spirit of wine is the most innocent material employed for this purpose, it is not in all cases proper. The golden covering may be in some parts worn off; or the base metal, with which it has been alloyed, may be corroded by the air, so as to leave the particles of the gold disunited; while the silver underneath, tarnished to a yellow hue, may continue a tolerable color to the whole; so it is apparent that the removal of the tarnish would be prejudicial, and make the lace or embroidery less like gold than it was before.

To take Mildew out of Linen.

Rub it well with soap: then scrape some fine chalk, and rub that also in the linen; lay it on the grass; as it dries, wet it a little, and it will come out after twice doing.

To take out Spots of Ink.

As soon as the accident happens, wet the place with juice of sorrel or lemon, or with vinegar, and the best hard white soap.

To take out Stains of Cloth or Silk.

Pound French chalk fine, mix with lavender-water to the thickness of mustard. Put on the stain; rub it soft with the finger or palm of the hand. Put a sheet of

plotting and brown paper on the top, and smooth it with an iron milk-warm.

To Cleanse Gloves without Wetting.

Lay the gloves upon a clean board, make a mixture of dried fulling-earth and powdered alum, and pass them over on each side with a common stiff brush: then sweep it off, and sprinkle them well with dry bran and whiting, and dust them well; this, if they be not exceedingly greasy, will render them quite clean; but if they are much soiled, take out the grease with crumbs of toasted bread, and powder of burnt bone: then pass them over with a woollen cloth dipped in fulling-earth or alum powder: and in this manner they can be cleaned without wetting, which frequently shrinks and spoils them.

To Clean all Sorts of Metal.

Mix half a pint of refined neat's foot oil, and half a gill of spirits of turpentine. Scrape a little kernel or rotten stone; wet a woollen rag therewith, dip it into the scraped kernel, and rub the metal well. Wipe it off with a soft cloth, polish with dry leather, and use more of the kernel. In respect to steel, if it is very rusty, use a little powder of pumice with the liquid, on a separate woollen rag first.

To take Stains out of Mahogany.

Mix 6 ounces of spirit of salts, and 1-2 an ounce of rock salt of lemons (powdered) together. Drop a little on the stains, and rub it with a cork till it disappear. Wash off with cold water.

To Clean Paper Hangings.

Cut into eight half quarters a stale loaf of bread; with one of these pieces, after having blown off all the dust from the paper to be cleaned by means of a good pair of bellows, begin at the top of the room, holding the crust in the hand, and wiping lightly downward with the crumb, about half a yard at each stroke, till the upper part of the hangings is completely cleaned all round; then go again round with the like sweeping stroke downward, always commencing each successive course a lit

tle higher than the upper stroke had extended till the bottom be finished. This operation, if carefully performed, will frequently make very old paper look almost equal to new. Great caution must be used not by any means to rub the paper hard, nor to attempt cleaning it the cross or horizontal way. The dirty part of the bread too must be each time cut away, and the pieces renewed as soon as at all necessary.

Cramp in Bathing.

For the cure of the cramp, when swimming, Dr. Franklin recommends a vigorous and violent shock of the part affected, by suddenly and forcibly stretching out the leg, which should be darted out of the water, into the air, if possible.

To Preserve Fresh Water at Sea.

Mix 1 1-2 parts of manganese in powder, with 250 parts of water, and agitate every fifteen days. In this way water has been preserved unchanged for seven years.

To Purify River or any other Water.

Dissolve half an ounce of alum in a pint of warm water, and stir it about in a puncheon of water just taken from the river: all the impurities will soon settle at the bottom, and in a day or two, it will become as clear as the finest spring water.

Method of Making Putrid Water Sweet.

An ounce and a half of powdered charcoal, will be sufficient for the purification of three pints and a half of corrupted water. This discovery has been pretty largely carried into execution, at sea, on long voyages, and with great success. It is necessary to use *fresh burnt* charcoal, or, at least, that which has been carefully excluded from the atmosphere.

To Make a Filtering Vessel.

Take a common garden pot, in the midst of which place a piece of wicker work; on this spread a layer of charcoal of four or five inches in thickness, and above

the charcoal a quantity of sand. The surface of the sand is to be covered with paper pierced full of holes, to prevent the water from making channels in it. This filter is to be renewed occasionally. By this process, which is at once simple and economical, every person is enabled to procure pure limpid water, at a very trifling expense.

To make Ottar of Roses.

The Royal Society of Edinburgh received from Dr. Monro the following account of the manner in which this costly perfume is prepared in the east. Steep a large quantity of the petals of the rose, freed from every extraneous matter, in pure water, in an earthen or wooden vessel, which is exposed daily to the sun, and housed at night, till a scum rises to the surface. This is the *ottar*, which, carefully absorb by a very small piece of cotton tied to the end of a stick. The oil collected, squeeze out of the cotton into a very diminutive phial, stop it for use. The collection of it should be continued, whilst any scum is produced.

To Pickle Onions.

Put a sufficient quantity into salt and water for nine days, observing to change the water every day; next put them into jars and pour fresh boiling salt and water over them, cover them close up till they are cold, then make a second decoction of salt and water, and pour it on boiling. When it is cold, drain the onions on a hair sieve, and put them into wide-mouthed bottles; fill them up with distilled vinegar; put into every bottle a slice or two of ginger, a blade of mace, and a tea-spoonful of sweet oil, which will keep the onions white. Cork them well up in a dry place.

Indestructible Ink for resisting the action of Corrosive Substances.

On many occasions, it is of importance to employ an ink indestructible by any process, that will not equally destroy the material on which it is applied. For black

ink, 25 grains of copal, in powder, are to be dissolved in 200 grains of oil of lavender, by the assistance of a gentle heat ; and are then to be mixed with 2 1-2 grains of lamp-black, and 1-2 a grain of indigo ; for red ink use 120 grains of oil of lavender, 17 grains of copal, and 60 grains of vermilion. A little oil of lavender, or of turpentine, may be added, if the ink be found too thick. A mixture of genuine asphaltum dissolved in oil of turpentine, amber, varnish, and lamp-black, would be still superior.

This ink is particularly useful for labelling phials &c., containing chemical or corrosive substances.

Shining Black Ink.

Beat up well together in an iron mortar the following ingredients, in a dry state ; viz.—

- 8 ounces of best blue gall-nuts,
- 4 ounces of copperas, or sulphate of iron,
- 2 ounces of clear gum arabic, and
- 3 pints of clear rain water.

When properly powdered, put to the above ; let the whole be shaken in a stone bottle three or four times a day, for seven days, and at the end of that time, pour the liquor off gently into another stone bottle, which place in an airy situation to prevent it from becoming foul or mothery. When used, put the liquor into the ink-stand as required.

Indelible Black Ink without Galls or Green Vitriol.

Infuse a pound of pomegranate peels, broken to a gross powder, for 24 hours in a gallon and a half of water, and afterwards boil the mixture till 1-3d of the fluid be wasted. Then add to it 1 pound of Roman vitriol, and 4 ounces of gum arabic powdered, and continue the boiling till the vitriol and gum be dissolved, after which the ink must be strained through a coarse linen cloth, when it will be fit for use.

This ink is somewhat more expensive, and yet not so good in hue as that made by the general method ; but the color which it has is not liable to vanish or fade in any length of time.

To Kill Borers in Trees.

Stop up their holes with hard soap. It is a simple, and a very good remedy.

To destroy Thistles, Fern, and Coltsfoot.

Run over your fields once or twice about the first of June, with a heavy cast-iron roller.

Cure for a Run-round on the Finger.

The first symptom of the disease is a heat, from swelling and pain, and a redness at the top of the nail. To cure—first open with a pin; then, with the point of a penknife, scratch the whole surface of the nail, both lengthwise and across. This alone, it is said, checks and cures the complaint.

Bleeding at the Nose.

To cure it, apply to the neck, behind and on each side, a cloth dipped in water; or put the legs and arms in cold water; or wash the temples, nose and neck, with vinegar; or snuff up vinegar and water.

To wash Woollens.

Always wash in very hot suds, and never rinse them.

To prevent Swelling from a Bruise.

Immediately apply a cloth, five or six fold, dipped in cold water, and new dipped when it grows warm.

A Burn or Scald.

If it be but skin deep, immediately plunge the part in cold water; keep it in an hour, if not well before. Perhaps longer.

A deep Burn or Scald.

Apply the inner rind of elder, well mixed with fresh butter. When this is bound on with a rag, plunge the part into cold water. This will suspend the pain till the medicine heals. Or mix lime-water and sweet oil to the thickness of cream, and apply it with a feather several times a day. This is a most effectual application.

To Fatten Pigs very Fat.

Feed them on boiled rice.

Chilblains.

Bathe the feet often in cold water, and when this is done apply a turnip poultice.

To prevent Chapped Hands.

Wash them with flour of mustard, or in bran and water boiled together. To cure—wash them with soft soap, mixed with red sand. Or wash them in sugar and water.

Black Japan for Leather.

Boiled oil, 1 gallon; burnt umber, 5 ounces; asphaltum, 5 ounces; lampblack, 1 pound. Thin with spirits of turpentine.

Black Japan.

1. Boiled oil, one gallon; umber, 8 ounces; asphaltum, 3 ounces; oil of turpentine, as much as will reduce it to the thinness required.

2. Asphaltum, 50 pounds; fuse, then add dark anise, 8 pounds; dark amber, 10 pounds; when melted, put in boiled drying oil, 15 gallons; litharge, 1 pound. Boil until perfectly mixed and stringy, then cool and thin with turpentine.

Lotions for Bites and Stings.

1. Distilled water, 5 parts; laudanum, 1 part. Mix.

2. Distilled water, 15 parts; water of ammonia, 2 parts. Mix.

3. Chloride of lime, 1 part; warm water, 11 parts. Put them into a bottle, cork it close, and agitate them well until cold, then pour off the clear.

Amalgam for the Cushions of Electrical Machines.

Take zinc, 2 parts; tin, 1 part; mercury, 5 parts. Mix. Rub the cushions with a mixture of tallow and beeswax, before applying the amalgam.

To Clean Britannia Ware.

Brittania ware should be first rubbed with a woollen cloth and sweet oil; then washed in water and suds, and rubbed with soft leather and whiting. Thus treated, it will retain its beauty to the last.

To clean Black Veils.

Pass them through a warm liquor of bullock's gall and water; rinse in cold water; then take a small piece of glue, pour boiling water on it, and pass the veil through it; clap it, and frame to dry.

Bleeding of a Wound.

1. Make two or three tight ligatures towards the lower part of each joint; slacken them gradually.

2. Apply tops of nettles, bruised.

3. Strew on it the ashes of a linen rag, dipped in sharp vinegar and burnt.

4. Take ripe puff-balls, break them warily, and save the powder. Strew this on the wound and bind it on. This will stop the bleeding of an amputated limb.

Biles.

1. Apply a little Venice turpentine.

2. An equal quantity of soap and brown sugar, well mixed.

3. A plaster of honey and wheat flour, or figs.

4. Or a little saffron in a white bread poultice. It is proper to purge also.

Hard Breasts.

Apply turnips roasted till soft, then mashed and mixed with a little oil of roses. Change this twice a day, keeping the breast very warm with flannel.

Sore Breasts and Swelled.

Boil a handful of camomile, and as much mallows, in milk and water. Foment with it between two flannels, as hot as can be borne, every twelve hours. It also dissolves any knot or swelling in any part where there is no inflammation.

A Bruise.

1. Immediately apply molasses spread on brown paper.

2. Apply a plaster of chopped parsley mixed with butter.

Sunburn, Smarting.

Wash the face with sage tea.

To Fasten the Teeth.

Put powdered alum, the quantity of a nutmeg, in a quart of spring water for twenty-four hours. Then strain the water and gargle with it.

To Clean the Teeth.

Rub them with the ashes of burnt bread.

To prevent the Tooth-Ache.

Wash the mouth with cold water every morning, and rinse it after every meal.

Baldness.

Take water, one pint; pearlash, half ounce; onion juice, one gill. Mix, and cork in a bottle. Rub the head hard with a rough linen towel dipped in the mixture.

Remedy for Chapped Hands.

Take one ounce of bitter almonds; peel them and wash them into a paste with oil of sweet almonds and the yolk of an egg, adding a little tincture of benzoin, so as to form a thick cream. Now add a few drops of oil of caraway. It is to be rubbed on the hands at night, and a soft kid glove is to be worn during the treatment.

To render Boots Waterproof.

Boiled oil, 16 parts; turpentine (spt.), 2 parts; bees-wax, 1 part; resin, 1 part; turpentine (Venice), 2 parts. Melt and use hot.

Receipts on Sympathetic Inks.

1. Write upon paper with a diluted solution of muriate of copper; when dry it will not be visible, but on being warmed before the fire, the writing will become of a beautiful yellow.

2. Write with a solution of muriate of cobalt, and the writing, while dry, will not be perceptible; but if held towards the fire, it will then gradually become visible; and if the muriate of cobalt be made in the usual way, the letters will appear of an elegant green color.

3. Write with acetate of cobalt, or with a muriate of cobalt, previously purified from the iron which it generally contains. When the writing is become dry, these letters will also be invisible. Warm the paper a little, and the writing will be restored to a beautiful blue.

4. Draw a landscape with Indian ink, and paint the foliage of the vegetables with muriate of cobalt, some of the flowers with acetate of cobalt, and others with muriate of copper. While this picture is cold it will appear to be merely an outline of a landscape, or winter scene; but when gently warmed, the trees and flowers will be displayed in their natural colors, which they will preserve only while they continue warm. This may be often repeated.

5. Write with dilute nitrate of silver, which when dry will be entirely invisible; hold the paper over a vessel containing sulphate of ammonia, and the writing will appear very distinct. The letters will shine with the metallic brilliancy of silver.

6. Write with a solution of nitrate or acetate of lead. When the writing is dry, it will be invisible. Then having prepared a glass decanter with a little sulphuret of iron strewed over the bottom of it, pour a little very dilute sulphuric acid upon the sulphuret, so as not to wet the mouth of the decanter, and suspend the writing, by means of the glass stopper, within the decanter. By an attention to the paper, the writing will become visible by degrees, as the gas rises from the bottom of the vessel.

7. Write with a weak solution of sulphate of iron, let it dry, and it will be invisible. By dipping a feather in tincture of galls and drawing the wet feather over the letters, the writing will be restored and appear black.

8. Write with a similar solution, and when dry wash the letters in the same way with prussiate of potash, and they will be restored of a beautiful blue.

9. Write with a solution of sulphate of copper, wash as before with prussiate of potash, and the writing will be revived of a reddish-brown color.

10. Write on paper with a solution of nitrate of

bismuth ; when this is dry the writing will be invisible, but if the paper be exposed to sulphuretted hydrogen gas, the words will be distinctly legible.

11. A letter written with a diluted solution of bismuth, becomes, when dry, illegible ; but a feather dipped in a solution of sulphuret of potash, will instantly blacken the oxide, and revive the writing.

To make Mutton-Suet Candles, in imitation of Wax.

1. Throw quick-lime in melted mutton suet ; the lime will fall to the bottom, and carry along with it all the dirt of the suet, so as to leave it as pure and as fine as wax itself.

2. Now, if to one part of the suet you mix three of real wax, you will have a very fine, and to appearance, a real wax candle ; at least the mixture could never be discovered, nor even in the moulding way of ornaments.

To judge of the Quality of Lamb.

If fresh, the vein in the neck of a fore-quarter is bluish : if green or yellow, stale. In the hind-quarter, if the knuckle is limp, and the part under the kidney smells slightly disagreeable, avoid it. If the eyes are sunken, do not buy the head.

Simple Recipe for Preserving Eggs.

Pack them during the summer and fall for winter. Take a stone crock or firkin, and put in a layer of salt, half an inch deep—insert your eggs on the *small end*, and cover each layer of eggs with a layer of salt. If the eggs are fresh when packed, and put into a cool, dry place, they will keep perfectly good until the following summer.

Macaroni.

Take wheat of the finest quality, reduce it to a coarse powder, or flour, by means of a pair of light mill-stones, set a little farther apart than usual, then make it into a dough with water, and form as for vermicelli.

Macassar Oil.

Olive oil, 1 pound ; oil of origanum, 1 drachm ; oil of rosemary, 1 scruple. Mix.

To Choose Lobsters.

Press your fingers on the eyes, and if fresh, the claws will have a strong motion; the heaviest are the best.

To Choose Geese.

A young goose has a yellow bill, if red it is a sign of age; if fresh, the feet will be pliable, but stale if stiff and dry.

To prevent the creaking of Doors.

1. Apply a little soap to the hinges.
2. Take lard, soap, black lead, equal parts. As before.

To Choose Ducks.

Buy those which have supple feet, and are hard and thick on the breast.

To Gather and Preserve Herbs.

Herbs should be gathered early in the morning, at the season when they are just beginning to flower. The dust should be washed, or brushed off them, and they should be then dried by a gentle heat, as quick as possible.

To Choose Herrings.

If fresh, the gills will be red, eyes bright, and body stiff and firm.

Choice of a Turkey.

Choose a smooth leg and short spur; eyes full and bright, and feet supple and moist.

Choice of Fowls.

If a cock, choose one with short spurs, observing that they have not been pared or cut; if a hen, her comb and legs must be smooth; smell them whether they are fresh, and feel whether the breast-bone is well covered; if not, they have probably died from disease.

Ointment for Sore Eyelids.

Levigated red precipitate, 1 part; spermaceti ointment, 25 parts. Mix, and apply with the tip of the finger every night on going to bed.

Eye Ointment.

1. Sulphate of zinc (in fine powder), 6 drachms, lard, 1 pound. Mix carefully.

2. Sugar of lead, 7 drachms; lard, 1 pound. As before.

To Preserve the Eyesight.

1. Avoid sitting in the dark for any length of time.

2. Avoid straining the eyes by reading small print, or looking at minute objects.

3. Avoid reading or writing much in the dusk of the evening or by candle light.

4. Do not gaze for any length of time on bright or glaring objects, as the fire, gaslight, &c.

5. Observe to hold your book, paper, or work, at a suitable distance from the eyes.

To ascertain a Horse's Age.

Every horse has six teeth above and below; before three years old, he sheds his middle teeth; at three he sheds one more on each side of the central teeth; at four, he sheds the two corner and last of the fore-teeth. Between four and five, the horse cuts the under tusks; at five, will cut his upper tusks, at which time his mouth will be complete. At six years, the grooves and hollows begin to fill up a little; at seven, the grooves will be well nigh filled up, except the corner teeth, leaving little brown spots where the dark-brown hollows formerly were. At eight, the whole of the hollows and grooves are filled up. At nine, there is very often seen a small bill to the outside corner teeth; the point of the tusk is worn off, and the part that was concave begins to fill up and become rounding; the squares of the central teeth begin to disappear, and the gums leave them small and narrow at top.

Choice of Pork.

If young, the rind will be *thin*, *tender*, and *easily* impressed with the finger; when fresh, the flesh is smooth, and cool; if clammy, avoid it; if the fat is mealy, or full of kernels, it is unwholesome.

Hard Pomatum.

Take 30 pounds of suet,
 1 1-2 pounds of white wax,
 6 ounces of essence of Bergamot,
 4 ounces of lemon,
 1 ounce of lavender,
 4 drachms of oil of rosemary, and
 2 drachms of essence of ambergris.

Shred and pick the suet clean, and melt it in an earthen pan or pipkin. Then stir it well and strain; and when nearly cold, add the perfumes, stirring well as before. When properly mixed, pour it into tin moulds.

Pearl Water for the Face.

Put half a pound of best Spanish oil soap, scraped very fine, into a gallon of boiling water. Stir it well for some time, and let it stand till cold. Add a quart of rectified spirit of wine, and half an ounce of oil of rosemary; stir them again.

This compound liquid, when put up in proper phials, in Italy, is called *tincture of pearls*. It is an excellent cosmetic for removing freckles from the face, and for improving the complexion.

Ink Powder for Immediate Use.

Reduce into subtle powder 10 ounces of gall-nuts, 3 ounces of Roman vitriol, (green copperas), with two ounces each of roche alum and gum arabic. Then put a little of this mixture into a glass of white wine, and it will be fit for instant use.

To make Exchequer Ink.

To 40 pounds of galls, add
 10 pounds of gum,
 9 pounds of copperas, and
 45 gallons of soft water.

This ink will endure for centuries.

To make Red Ink.

Take of the raspings of Brazil wood a quarter of a pound, and infuse them two or three days in vinegar, which should be colorless where it can be so procured.

Boil the infusion an hour over a gentle fire, and afterwards filter it, while hot, through paper laid in an earthenware cullender. Put it again over the fire, and dissolve in it, first 1-2 an ounce of gum arabic, and afterwards of alum and white sugar, each 1-2 an ounce. Care should be taken that the Brazil wood be not adulterated with the Brasileto or Campeachy wood.

Permanent Red Ink.

Take of oil of lavender, 120 grains, of copal in powder, 17 grains, red sulphuret of mercury, 60 grains. The oil of lavender being dissipated with a gentle heat, a color will be left on the paper surrounded with the copal; a substance insoluble in water, spirits, acids, or alkaline solutions.

This composition possesses a permanent color, and a MS. written with it, may be exposed to the process commonly used for restoring the color of printed books, without injury to the writing. In this manner interpolations with common ink may be removed.

Blue Ink.

This may be made by diffusing Prussian blue, or indigo, through strong gum-water.

The common water-color cakes, diffused in water, will make sufficiently good colored inks for most purposes.

Permanent Ink for Marking Linen.

Take a drachm of nitrate of silver (lunar caustic), dissolve it in a glass mortar in double its weight of pure water; add to this solution 10 drops of nitric acid; this is the ink. In another glass vessel dissolve a drachm of salt of tartar in 1 1-2 ounces of water; this is usually named the liquid pounce, with which the linen is wet previously to the application of the ink.

Pearl Powder for the Face.

There are several sorts; the finest is made from *real pearls*, and is the least hurtful to the skin. It gives the most beautiful appearance, but is too dear for common use; still the perfumer ought never to be without it, for the use of the curious and the rich.

To prevent Ink from freezing in Winter.

Instead of water use brandy, with the same ingredients which enter into the composition of any ink, and it will never freeze.

To Prevent Mould in Inks.

In order to secure the above and other inks from growing mouldy, a quarter of a pint or more of spirits of wine, may be added; but to prevent its containing any acid, which may injure the ink, a little tartar or pearl-ashes should be added, previously, and the spirit poured off from it, which will render it innocent with regard to the color of the ink.

Another Method.

The most simple, yet effectual method, is to infuse a small piece of salt about the size of a hazel nut to each quart.

To write on greasy Paper or Parchment.

Put to a bullock's gall a handful of salt, and a quarter of a pint of vinegar, stir it until it is mixed well; when the paper or parchment is greasy, put a drop of the gall into the ink, and the difficulty will be instantly obviated.

Spruce Beer.

Take, if white is intended, 6 lbs. of sugar; if brown, as much treacle, and a pot of spruce, and ten gallons of water.

To Pickle Cucumbers.

Let them be as free from spots as possible; take the smallest that can be got, put them into strong salt and water for nine days, till they become yellow; stir them at least twice a day; should they become perfectly yellow, pour the water off and cover them with plenty of vine leaves. Set the water over the fire, and when it boils, pour it over them, and set them upon the earth to keep warm. When the water is almost cold make it boil again, and pour it upon them; proceed thus till they are of a fine green, which they will be in four or five times; keep them well covered with vine leaves, with a cloth and dish over the top to keep in the steam, which will help to green them.

When they are greened put them in a hair sieve to drain, and then to every two quarts of white wine vinegar, put half an ounce of mace, ten or twelve cloves, an ounce of ginger cut into slices, an ounce of black pepper, and a handful of salt. Boil them all together for five minutes; pour it hot on the pickles, and tie them down for use.

To make Cold Cream Pomatum for the Complexion.

Take an ounce of oil of sweet almonds, and half a drachm each, of white wax and spermaceti, with a little balm. Melt these ingredients in a glazed pipkin over hot ashes, and pour the solution into a marble mortar; stir it with the pestle until it becomes smooth and cold, then add gradually an ounce of rose or orange-flower water; stir all the mixture till incorporated to resemble cream. This pomatum renders the skin at once supple and smooth. To prevent marks from the small pox, add a little powder of saffron. The gallipot in which it is kept, should have a piece of bladder tied over it.

To make Turners' Cement.

The following is a very excellent cement for the use of turners and artisans in general: 16 parts of whiting are to be finely powdered, and heated to redness, to drive off all the water. When cold, it is to be mixed with 16 parts of black resin, and one part of beeswax, the latter having been previously melted together, and the whole stirred till of an uniform consistence.

To Solder or Cement broken Glass.

Broken glass may be soldered or cemented in such a manner as to be as strong as ever, by interposing between the parts glass ground up like a pigment, but of easier fusion than the pieces to be joined, and then exposing them to such a heat as will fuse the cementing ingredient, and make the pieces agglutinate without being themselves fused. A glass for the purpose of cementing broken pieces of flint glass, may be made by fusing some of the same kind of glass previously reduced to powder, along with a little red lead and borax, or with the borax only.

Chaps in Women's Nipples.

Apply balsam of sugar Or apply butter of wax,
which speedily heals them

To prevent Murrain in Cattle.

Take equal parts of salt and slaked lime; mix, and give two table-spoonsful twice a week, during the prevalence of the disease.

To make Almond Oil.

Take bitter almonds, and with a hydraulic press squeeze out the oil, either in the cold, or aided by hot iron plates.

Acorn Coffee.

Take sound ripe acorns, peel them and roast them with a little butter, or fat; then, when cold, grind them with one-third their weight of real coffee.

Hair-curling Liquid for Ladies.

Take borax, 2 ounces; gum Senegal in powder, 1 drachm; add hot water, (not boiling,) 1 quart. Stir, and as soon as the ingredients are dissolved, add 2 ounces of spirits of wine strongly impregnated with camphor. On retiring to rest, wet the locks with the above liquid, and roll them on twists of paper as usual. Leave them till morning, when they may be unwrapped and formed into ringlets.

How to get a Tight Ring off a Finger.

Thread a needle flat in the eye, with a strong thread; pass the head of the needle, with care, under the ring, and pull the thread through a few inches towards the hand; wrap the long end of the thread thickly round the finger, regularly, all down to the nail, to reduce its size. Then lay hold of the short end of the thread and unwind it. The thread pressing against the ring will gradually remove it from the finger. This never failing method will remove the tightest ring without difficulty, however much swollen the finger may be.

To revive Faded Black Cloth.

Having cleaned it well, boil two or three ounces of logwood for half an hour. Dip it in warm water and

squeeze it dry; then put it into the copper, and boil half an hour. Take it out and add a small piece of green coppéras, and boil it another half hour. Hang it in the air for an hour or two, then rinse it in two or three cold waters, dry it and let it be regularly brushed with a soft brush, over which a drop or two of oil of olives has been rubbed.

To prevent the Toothache.

Rub well the teeth and gums with a hard tooth-brush, using the flowers of sulphur as a tooth-powder, every night on going to bed; and if it is done after dinner it will be best. This is an excellent preservative to the teeth, and void of any unpleasant smell.

To preserve Feathers.

When poultry is picked, the feathers should be carefully preserved from damp and dirt, and all hard bits of quill cut out; then put them in paper bags, and hang them about a kitchen or dry laundry to season. When enough are collected to be of use, they had better be dried in a cool oven. Fresh feathers must not be put in a bag with those that are partly dry.

To preserve Cheese from Mites.

Paste over it coarse brown paper, to cover every part.

Potato Glue.

Take a pound of potatoes, peel them, and boil them, pound them while they are hot in three or four pounds of boiling water; then pass them through a hair sieve; afterwards add to them two pounds of good chalk, very finely powdered, previously mixed with four pounds of water, and stir them both together. The result will be a species of glue or starch, capable of receiving every sort of coloring matter, even of powdered charcoal, of brick, or lampblack, which may be employed as an economical means of painting door-posts, walls, palings, and other parts of buildings exposed to the action of the air.

Gapes in Chickens.

It is said that if you keep iron standing in vinegar, or what is the same thing we suppose, vinegar standing in

an iron vessel, and put a little of the liquid in the food every few days, it will cure or prevent the gapes in chickens. So simple a remedy for a fatal disease may be worth trying.

Protection of Vines.

Plaster sprinkled over squashes and cucumbers, when they first come out of the ground, will protect them from that little destroyer, the striped bug.

To make Corks for Bottles.

Take wax, hog's lard, and turpentine, equal quantities, or thereabouts. Melt all together and stop your bottles with it.

To Petrify Wood, &c.

Take equal quantities of gem-salt, rock-alum, white vinegar, chalk, and pebbles powder. Mix all these ingredients together: there will happen an ebullition. If, after it is over, you throw in this liquor any porous matter, and leave it there soaking four or five days, it will positively turn into petrifications.

Corns.

Never cut your corns: it is dangerous. To remove them when they become hard, soak them in warm water, and then with a small pumice stone rasp down the corn. Try it, and you will never use a knife afterwards.

To preserve Fruit Trees from Mice and Insects.

Apply, early in the fall, around the root a thick layer of lime and ashes. It would be well to sink the earth around the tree about six or eight inches; throw in a few shovels-full of the lime and ashes, and then cover up with earth, tramping it well down.

Gapes in Chickens

May be easily cured by giving them small crums of dough impregnated with a little soft soap; once or twice is sufficient.

Powder for Hiccough.

Put as much dill-seed, finely powdered, as will lie on a shilling, into two spoonsful of syrup of black cherries, and take it presently.

Grubs in Horses.

Take 1 pint of strong vinegar, 1 ounce chalk in powder ; stir it well and drench the animal.

Artificial Oysters.

Take young green corn, grate it in a dish ; to one pint of this add one egg well beaten, a small teacup of flour, half a cup of butter, some salt and pepper, and mix them well together. A tablespoonful of the batter will make the size of an oyster. Fry them a light brown, and when done butter them. Cream, if it can be procured, is better than butter.

To render Sea-Water capable of washing Linen.

Drop into sea-water a solution of soda or potash. It will become milky, in consequence of the decomposition of the earthy salts and the precipitation of the earth. This addition renders it soft, and capable of washing. Its milkiness will have no injurious effect.

To prevent Drowning.

If a person should fall out of a boat, or indeed fall into any water from which he cannot extricate himself, but must wait some little time for assistance, let him take off his hat and hold it by the brim, placing his fingers inside the crown, (top upwards,) and he will be able, by this method, to keep his mouth above water till assistance shall reach him.

To make Coral Tooth Powder.

Take 4 ounces of coral, reduced to an impalpable powder,

- 8 ounces of very light Armenian bole,
- 1 ounce of Portugal snuff,
- 1 ounce of Havana snuff,
- 1 ounce of good burnt tobacco ashes, and
- 1 ounce of gum myrrh, well pulverized.

Mix them together and sift them twice.

A good Tooth Powder.

To make a good tooth powder, leave out the coral and in its place put pieces of brown stone-ware, reduced to a very fine powder. This is the common way of making it.

Count Berchtold's Cautions.

Those who travel on foot, especially in hot climates should never sleep under the shadow of a tree, or near a hemp field.

Thirst is more effectually quenched by eating fresh fruit, and a morsel of bread, than by drinking water; lemon juice, or a little vinegar mixed with water, is better than water alone.

After a long journey on foot, it is unwholesome to take a plentiful meal, or to sit near a great fire. Travellers on foot should wear flannel waistcoats next the skin; and all travellers should *carefully avoid* DAMP BEDS, and the falling of the evening dew after a free perspiration.

To Prevent Danger from Wet Clothes.

Keep, if possible, constantly in motion, and take care not to go near a fire or into a very warm place, so as to occasion sudden heat, till some time after procuring dry clothes. Sitting or standing in a draught, or current of air, in wet clothes, is particularly injurious, and often fatal.

To Make Windsor Soap.

Melt hard curd soap, and scent it with oil of karni, and essence of bergamot, bought at the druggist's; or the essence of bergamot may be omitted.

To Make Almond Soap.

Take 2 lbs. of soap ley, made of barilla or kelp, so strong that a bottle, holding half a pint of water, will hold 11 ounces of the ley, and 4 lbs. of oil of almonds; rub them together in a mortar, and put the mixture into tin moulds, where let it be for some weeks, till the combination is perfect.

To avoid being Pressed to Death in a Crowd.

From pressure on the chest in crowds, the action of the lungs and viscera becomes stopped, the party sinks insensible, and generally dies at the instant. To prevent this, it will be necessary to present the sides to the pressure, and not the chest by any means. There will

thus be found little or no inconvenience, far less is the loss of life likely to occur.

To try the Quality of Field Mushrooms.

Take an onion, and strip the outer skin, and boil it with them ; if it remains white they are good, but if it becomes blue or black, there are certainly dangerous ones among them.

To Clean and Preserve the Teeth.

In the morning hold salt in the mouth under the tongue, till it melts or dissolves, and rub the teeth with it. This is, probably, the best application yet known, to cleanse and preserve the teeth.

To Prevent bad Toe-Nails.

Never cut the nails below the level of the end of the toe ; nor ever suffer them to grow much beyond that level. If they grow in at the side, scrape them on the top, and cut them often, both there and at the opposite corner.

To Prevent Corns.

Wear easy shoes ; frequently bathing the feet in lukewarm water, with a little salt or potash dissolved in it. The corn itself may be completely destroyed by rubbing it daily with a little caustic solution of potash, till a soft and flexible skin is formed.

Cosmetics.

To set off the complexion with all the advantage it can attain, nothing more is requisite than to wash the face with pure water ; or, if any thing farther be occasionally necessary, it is only the addition of a little soap.

To Prevent Cold Feet at Night.

Draw off the stockings, just before undressing, and rub the ankles and feet with the hand as hard as can be borne for five or ten minutes.

To Relieve Head-Ache in Bed.

If the head is much disturbed, wash it with cold water, and discontinue the night-cap : but wear worsted stockings in bed.

To Keep the Feet Dry.

The only method that has been found to succeed in keeping the feet dry is to wear, over the foot of the stocking, a sock made of oil silk. To keep it in its proper place, it will be necessary to wear over it a cotton or worsted sock.

To Procure Sleep.

Pour a pint of boiling water on an oz. of Epsom salts. Set it to cool, and drink it on going to bed. If still disturbed, count from 1 to 1000. Sleep will generally come on before the person has reached 500.

To Prevent Lamps from proving pernicious to Asthmatic Persons.

Let a sponge, three or four inches in diameter, be moistened with pure water, and in that state be suspended by a string or wire, exactly over the flame of the lamp, at the distance of a few inches; this substance will absorb all the smoke emitted during the evening or night, after which it should be rinsed in warm water, by which means it will be again rendered fit for use.

To Prevent the Feet of Horses from Balling with Snow.

If the frog in the hoofs of horses and the fetlock be cleaned, and well rubbed with soft soap, previously to their going out in snowy weather, it will effectually prevent their falling, from what is termed balling the snow. A number of accidents might be prevented by this simple precaution.

Draught for Gripes or Bots in Horses.

Take of Venice turpentine 1 ounce, beat it up with the yolk of an egg, and then add of peppermint water, or even of common water, if the other is not at hand, 1 pint and a half (English measure) and 2 ounces of whiskey or gin. This will serve for one dose.

To Preserve Eggs.

Mix together in a tub, or vessel, one bushel of quick lime, thirty-two ounces of salt, eight ounces of cream of tartar, with as much water as will reduce the composition to a sufficient consistence to float an egg. Then

put, and keep the eggs therein, which will preserve them perfectly sound for two years at least.

To Extinguish a Chimney on Fire.

Shut the doors and windows, throw water on the fire in the grate, and then stop up the bottom of the chimney.

To Remove Flies from Rooms.

Take half a tea-spoonful of black pepper, in powder, one tea-spoonful of brown sugar, and one table-spoonful of cream; mix them well together, and place them in the room, on a plate where the flies are troublesome, and they will soon disappear.

To Cure the Scouring in Cattle.

Take of powdered rhubarb, 2 drachms,
castor oil, 1 oz.

kali, prepared, 1 tea-spoonful.

Mix well together in a pint of warm milk. If the first dose does not answer, repeat it in 36 or 48 hours.

Cure for Cattle Swelled with Green Food.

When any of your cattle happen to get swelled with an over feed of clover, frosty turnips, or such like, instead of the usual method of stabbing in the side, apply a dose of train-oil, which, after repeated trials, has been found to prove successful. The quantity of oil must vary according to the age or size of the animal. For a grown-up beast, of an ordinary size, the quantity recommended is about an English pint.

To Preserve Milk.

Provide bottles which must be perfectly clean, sweet and dry; draw the milk from the cow into the bottles, and as they are filled, immediately cork them well up, and fasten the corks with pack-thread or wire. Then spread a little straw on the bottom of a boiler, on which place bottles with straw between them, until the boiler contains a sufficient quantity. Fill it up with cold water; heat the water, and as soon as it begins to boil, draw the fire, and let the whole gradually cool. When quite cold take out the bottles, and pack them with straw or saw-dust in hampers, and stow them in the coolest

part of the house or ship. Milk preserved in this manner, although eighteen months in the bottles, will be as sweet as when first milked from the cow.

An Astringent for the Teeth.

Take of fresh conserve of roses, 2 ounces; the juice of half a sour lemon; a little very rough claret; and 6 ounces of coral tooth-powder. Make them into a paste, which put up in small pots; and if it dry by standing, moisten with lemon-juice and wine, as before.

A radical Cure for the Toothache.

Use as a tooth-powder the Spanish snuff called Sibella, and it will clean the teeth as well as any other powder, and totally prevent the toothache; and make a regular practice of washing behind the ears with cold water every morning. The remedy is infallible.

To Clean the Teeth.

Take of good soft water, 1 quart,
Juice of lemon, 2 ounces,
Burnt alum, 6 grains,
Common salt, 6 grains. Mix.

Boil them a minute in a cup, then strain and bottle for use. Rub the teeth with a small bit of sponge tied to a stick, once a week.

Plaster of Spanish Flies.

1. Simple wax plaster, 3 pounds; suet, 1 pound; cantharides or flies, 2 pounds. Mix.

2. Yellow wax, yellow resin, suet, Spanish flies, equal parts. Mix.

3. Common wax plaster, 9 parts; suet, 1 part; color to sample. Melt and rub the rolls over with a little powder of Spanish flies. In all spread blisters, it is usual to sprinkle some powdered flies over the surface, and these principally, if not solely, raise the blister.

Excellent Perfume for Gloves.

Take of ambergris one drachm; civit the like quantity; add flour-butter, a quarter of an ounce; and with these well mixed rub the gloves over gently, with fine cotton wool, and press the perfume into them.

To make the Teeth White.

A mixture of honey with the purest charcoal will prove an admirable cleanser.

Perfumed Bags for Drawers.

Cut, slice, and mix well together, in the state of very gross powder, the following ingredients :

- 2 oz. of yellow saunders,
- 2 oz. of coriander seeds,
- 2 oz. of orris root,
- 2 oz. of calamus aromaticus,
- 2 oz of cloves,
- 2 oz. of cinnamon bark,
- 2 oz. of dried rose leaves,
- 2 oz. of lavender flowers, and
- 1 lb. of oak shavings.

When properly mixed, stuff the above into small linen bags, which place in drawers, wardrobes, &c., which are musty, or liable to become so.

Tincture of Musk.

This excellent spirit requires 6 drachms of China musk, 20 grains of civet, and 2 drachms of red rose-buds. Reduce these ingredients to powder with loaf-sugar, and pour over them three pints of spirits of wine.

A Perfume to prevent Pestilential Airs, &c.

Take of benjamin, storax, and galbanum, each half an ounce ; temper them, being bruised into powder, with the oil of myrrh, and burn them in a chafing dish : or else take rosemary, balm, and bay leaves ; heat them in wine and sugar, and let the moisture be consumed ; likewise burn them by the heat of the pan, and they will produce a very fine scent.

Pastils for Perfuming Sick Rooms.

Powder separately the following ingredients, and then mix, on a marble slab :

- 1 lb. of gum benzoin,
- 8 oz. of gum storax,
- 1 lb. of frankincense, and
- 2 lbs. of fine charcoal.

Add to this composition the following liquids :

6 oz. of tincture of benzoin,
2 oz. of essence of ambergris,
1 oz. of essence of musk,
2 oz. of almond oil, and
4 oz. of clear syrup.

Mix the whole into a stiff paste, and form into pastils of a conical shape, which dry in the heat of the sun. If more liquid should be required for the paste, add warm water.

To Perfume Clothes.

Take of oven-dried best cloves, cedar and rhubarb wood, each one ounce, beat them to a powder, and sprinkle them in a box or chest, where they will create a most delightful scent, and preserve the apparel against moths.

Musk and Civet Perfumes.

Take 2 pennyweights of pure musk, 12 grains of civet, and 1 pennyweight of the residuum of spirit of ambergris. Make this into a paste, with 2 ounces of spirit of musk, made by infusion. Powder it with loaf-sugar, and mix in 16 pounds of fine hair powder.

To render Paper Fire-Proof.

Whether the paper be plain, written, or printed on, or even marbled, stained, or painted, for hangings, dip it in a strong solution of alum water, and then thoroughly dry it. In this state it will be fire-proof. This will be readily known by holding a slip, thus prepared, over a candle. Some paper requires to imbibe more of the solution than by a single immersion; in which case the dipping and drying must be repeated, till it becomes fully saturated. Neither the color nor quality of the paper will be in the least affected by this process, but, on the contrary, will be improved.

To prevent Haystacks from taking Fire

Where there is any reason to fear that the hay which is intended to be housed or stacked is not sufficiently dry, let a few handfuls of common salt be scattered between each layer.

To render Cloth and Wood Incombustible.

Mr. Gay Lussac has proposed to render cloths, stuffs, &c., incombustible, by immersing them in solutions of alum, sea-salt, &c.

Mushroom Catsup.

Mushroom juice, 1 gallon; allspice, 1 ounce; pepper, cloves, ginger, each, half ounce; salt, 4 pounds. Boil for one hour, strain and bottle.

To distinguish Mushrooms from Poisonous Fungi.

1. Sprinkle a little salt on the spongy part or gills of the sample to be tried. If they turn yellow, they are poisonous: if black, they are wholesome. Allow the salt to act before you decide on the question.

2. False mushrooms have a warty cap, or else fragments of membrane adhering to the upper surface, are heavy, and emerge from a vulva or bag; they grow in tufts or clusters in woods, on the stumps of trees, &c., whereas the true mushrooms grow in pastures.

3. False mushrooms have an astringent, styptic, and disagreeable taste.

4. When cut they turn blue.

5. They are moist on the surface, and generally

6. Of a rose or orange color.

7. The gills of the true mushroom are of a pinky red, changing to a liver color.

8. The flesh is white.

9. The stem is white, solid, and cylindrical.

To make Hens Lay Perpetually.

Give your hens half an ounce of fresh meat each, chopped fine, once a day, while the ground is frozen, and they cannot get worms or insects; allow no cocks to run with them, and they will lay perpetually. Try it.

They also require plenty of grain, water, gravel, and lime.

To put Black Spots on a White Horse.

Lime, (quick,) powdered, half a pound; litharge, four ounces. Well beat and mix the litharge with the lime. The above to be put into a vessel and a sharp ley to be poured over it. Boil, and skim off the substance which

rises on the surface. This is the coloring matter, which must be applied to such parts of the animal as you wish to have dyed black. Red hair may be dyed black with a very similar composition. Thus, boil four ounces of lime with four ounces of litharge, in fresh water: the scum that rises will have the same effect. If the hair be entirely free from grease, one night will be sufficient to stain it black.

To escape the Effects of Lightning.

1. Avoid standing under trees to escape from the rain during a thunder storm, but boldly expose yourself to the wet; it will preserve you from the lightning.

2. Avoid standing close to any metallic bodies, as lead pipes or iron railings, &c.

3. When in doors during a thunder storm, sit or stand as near to the middle of the room as convenient; avoid standing at the window, or sitting near the wall.

Fistula in Horses.

When the fistula makes its first appearance, place a seton in each shoulder, just below the inflamed parts, and keep them running for two or three weeks. This will often remove the disease without any further attention.

Soak your Seed Corn in a Solution of Saltpetre.

It destroys the worm, is not relished by crows or squirrels, and yields much more abundantly than when planted without.

Sore Tongue in Horses.

Take 1 part sugar of lead, 1 part bole ammoniac, and 2 parts burnt alum, the whole to be added to 3 quarts of good vinegar. With this wash out the mouth twice a day.

To preserve Walls from Dampness.

When the walls are about two feet high, use for one row of stones or bricks a mixture of tar, pitch, and fine sand, in the same way as mortar. The composition must be previously melted to a proper consistence.

To remove Crickets.

Put a little chloride of lime and powdered tobacco in their holes.

Shaving Paste.

1 Oil of almonds, 2 parts; white soap, 2 parts; common soda, 1 part; rosewater, 1 part. Melt and perfume with ottar of roses.

2. White wax, 2 ounces; spermaceti, 2 ounces; sweet oil, 2 ounces; soda, 2 ounces; white soap, 2 ounces; powdered cassia, 1-2 drachm; powdered cloves, 1-2 drachm; bergamot, 35 drops; essential oil of almonds, 5 drops. Mix with rose-water.

To ascertain whether a Horse has good Sight.

Examine the size of the pupil of the eye in a dull light, then gradually expose it to a brighter one, and observe whether it contracts or not; if it does, the horse can see, and according to the amount of the contraction will be the keenness of his sight.

To ascertain the Quality of Veal.

Choose the meat the kidney of which is well covered in white fat, the lean dry and white, and the suet firm. If clammy, or spotted, the veal is stale. The flesh of the cow calf is whitest, but that of the bull calf firmest. The whitest veal is not the most juicy, having generally been made so by lengthened bleeding.

Nankin Dye.

1. Annato, potash, equal parts; water sufficient. Boil until dissolved.

2. Spanish annato, 12 parts; alum and potash, each, 1 part; water, sufficient quantity. Unite by boiling.

To prevent the Nightmare.

Avoid heavy suppers, and take either of the following doses on going to bed:

1. Bicarbonate of soda, 1 drachm; tincture of cardamus (comp.), 3 drachms. Mix.

2. Sal volatile, 20 drops; tincture of ginger, 2 drachms. Mix.

3. Magnesia, 20 grains; rhubarb, 15 grains; carbonate of soda, 10 grains. Mix.

A Natural Dentifrice.

The juice of the strawberry

Detergent Gargle for Inflammatory Sore Throat.

Nitrate of potash (powdered), -1 part; honey, 3 parts; infusion of roses, 21 parts. Mix. To be used every two hours.

To clean Colored Silks.

Put some white soap into boiling water, and heat it until dissolved in a strong lather. At a hand-heat put in the article. If strong, it may be rubbed as in washing; rinse it quickly in warm water, and add oil of vitriol, sufficient to give another water a sourish taste, if for bright yellows, crimsons, maroons, and scarlets; but for oranges, fawns, browns, or other shades, use no acid. For bright scarlet, use a solution of tin. Gently squeeze, and then roll it in a coarse sheet, and wring it. Hang it in a warm room to dry, and finish it by calendering or mangling.

For pinks, rose colors, and thin shades, &c., instead of oil of vitriol, or solution of tin, prefer lemon-juice, or white-tartar, or vinegar.

For blues, purples, and their shades, add a small quantity of American pearlash; it will restore the colors. Wash the articles like a linen garment, but, instead of wringing, gently-squeeze and sheet them, and when dry, finish them with fine gum-water, or dissolved isinglass, to which add some pearlash, rubbed on the wrong side; then pin them out.

Blues of all shades are dyed with archil, and afterwards dipped in a vat; twice cleaning with pearlash, restores the color. For olive-greens, a small quantity of verdigris dissolved in water, or a solution of copper, mixed with the water, will revive the color again.

Drink for Invalids.

1. Barley-water, acidulated with lemon-juice; milk and water; lemon or orange-whey; thin gruel; bohea, balm, or mint tea.

2. Fresh small beer; porter; port or claret wine with water; weak brandy and water.

3. Brisk cider and perry; sherry, port, or claret wine; rum or brandy diluted with water.

Catsup for Sea Stores.

Take beer, 1 gallon; vinegar, 3 quarts; anchovies (washed), 1 1-2 pounds; shallots, 1 1-2 pounds; mace, cloves, black pepper, each, 1-2 ounce; ginger powder, 1 ounce; mushroom flaps, rubbed to pieces, 2 quarts. Boil until reduced to ten pints, then strain, cool, and bottle. To be used with a little butter.

Iron Cement.

Take iron borings, 98 parts; sal ammoniac, 2 parts; water to make them into a paste for use.

To sweeten Musty or Stinking Casks

1. First wash them with sulphuric acid, and then with clear water; afterwards wash them well out with water.

2. For large casks, unhead them and whitewash them with quicklime.

3. Or match them with sulphur mixed with a little nitrate of potash, and afterwards wash them well with water.

4. Char the inside of the staves.

Observe in every case to *scald* or *well wash* the casks out before use.

To render Permanent Chalk or Pencil Drawings.

Lay the drawing on its face and give the back two or three thin coats of the following (No. 1.) mixture, let it dry, and turn it with the chalk upwards, and give that side one or two coats also; lastly, if you choose, give it one or two coats of No. 2.

1. Isinglass or gum arabic, 5 parts; water, 12 parts. Mix.

2. Canada balsam, 4 parts; turpentine, 5 parts. Mix.

To remove the Turnip Flavour from Butter.

Nitre, 1 part; water, 20 parts. Dissolve, and put a little into the milk, warm from the cow.

To hasten the Blowing of Bulbous-Rooted Flowers.

Nitrate of potash, 12 ounces; common salt, 4 ounces, pearlash, 3 ounces; sugar, 5 ounces; rain-water.

quart. Dissolve, and put a spoonful of this liquid into the flower-glass, then fill it with soft water. Change the water every nine days.

To Clarify Butter.

Take butter, melt it in a warm bath, then let it settle, pour off the clear, and cool as quickly as possible. Butter prepared in this way will keep a long time good.

Compositions for Roman Candles.

For the candle, nitre, 16 parts; charcoal, 7 parts; sulphur, 4 parts. Mix. For the stars, nitre, 16 parts; gunpowder, 5 parts; sulphur, 7 parts. Mix with camphorated spirit and gum-water. For use, put in one spoonful of fine gunpowder, then a star, then a measure full of the composition, and proceed in this way until the case is full.

Rose Water.

1. Rose petals, 60 pounds; water, 26 gallons. Draw over twenty gallons.

2. Rose petals, 5 bushels; water sufficient. Draw over nine gallons. Rose-root water and yellow sandalwood water, are often sold for this article.

Economical Rouge.

1. Finely-powdered carmine, 1 ounce; white pomatum, 7 ounces. Mix, and put it for use.

2. French chalk (finely powdered), 1 pound; carmine, 3 ounces; oil of almonds to mix.

Rouge for cleaning Plate.

Precipitated subcarbonate of iron, 3 parts; prepared chalk, 3 parts; Armenian bole, 2 parts. Mix. Be sure to reduce the articles to the finest powder possible.

Substitute for Yeast.

Take wheat flour, 8 pounds, and water to make it of the consistence of cream. Boil for an hour, then add sugar, 1 pound; yeast, 1-4 pint. Ferment.

To keep empty Casks Sweet.

Bung them close as soon as emptied

Japanese Cement, or Rice Glue.

This elegant cement is made by mixing rice-flour intimately with cold water, and then gently boiling it; it is beautifully white, and dries almost transparent. Papers pasted together by means of this cement, will sooner separate in their own substance than at the joining.

To make a Fire and Water-Proof Cement.

To half a pint of vinegar, add the same quantity of milk; separate the curd, and mix the whey with the whites of 5 eggs; beat it well together, and sift into it a sufficient quantity of quick lime, to convert it to the consistency of a thick paste. Broken vessels, mended with this cement, never afterwards separate, for it resists the action of both fire and water.

Turkish Cement for Joining Metals, Glass, &c.

Dissolve mastich in as much spirit of wine as will suffice to render it liquid; in another vessel dissolve as much isinglass (which has been previously soaked in water till it is swollen and soft) in brandy, as will make two ounces by measure of strong glue, and add two small bits of gum galbanum, or ammoniacum, which must be rubbed or ground till they are dissolved; then mix the whole with a sufficient heat; keep it in a phial stopt, and when it is to be used set it in hot water.

Substitute for Tea or Coffee.

Beech mast, or the beech tree, which is an oily, farinaceous nut, and was used in diet, in an early age, may be used as a substitute for coffee, when roasted. Well dried, it makes a wholesome bread, and in this condition, it has served for subsistence, in times of scarcity; it is now, however, used only for fattening hogs, poultry, &c.

Substitute for Coffee, Cocoa, &c.

The ground sassafras nut is an excellent substitute for coffee, cocoa, &c., for breakfast and supper. It is not only nutritious, but a more efficacious correcter of the habit, in cases of eruptions of the skin and scrofula, than

the sassafras wood, or the compound decoction of sassa-parilla.

As a powerful preventive of cutaneous affections, it is particularly valuable.

It is also an excellent article of diet for rheumatic, gouty, and asthmatic invalids.

To make Acorn Coffee.

A pleasant beverage is drank in Germany, called the acorn coffee, and is made as follows :

Take sound ripe acorns, peel off the shell or husk, divide the kernels, dry them gradually, and then roast them in a close vessel, or roaster, keeping them continually stirring. Care must be taken not to burn or roast them too much. Take of these roasted acorns, ground like other coffee, half an ounce alone, or mixed with a drachm of other coffee, and sweeten with sugar, with or without milk.

To Prepare Water-Proof Boots.

Take 3 oz. of spermaceti, and melt it in a pipkin, or other earthen vessel, over a slow fire ; add thereto six drachms of Indian rubber, cut into slices, and these will presently dissolve. Then add *seriatim* of tallow, 8 ounces ; hog's lard, 2 ounces ; amber varnish, 4 ounces. Mix, and it will be fit for use immediately. The boots or other material to be treated, are to receive two or three coats, with a common blacking brush, and a fine polish is the result.

To Thicken Linen Cloth for Screens and Bed Testers.

Grind whiting with zinc, and to prevent its cracking add a little honey to it ; then take a soft brush and lay it upon the cloth, and so do two or three times, suffering it the meanwhile to dry between layings on, and for the last laying, smooth it over with Spanish white, ground with linseed oil, the oil being first heated, and mixed with a small quantity of the litharge of gold, the better to endure the weather, and so it will be lasting.

Lacquer for Brass.

Take of seed lac, 6 oz.; amber or copal, ground on porphyry, 2 oz.; dragon's blood, 40 grains; extract of

red sandal wood, obtained by water, 30 grains; Oriental saffron, 36 grains; pounded glass, 4 oz.; very pure alcohol, 40 oz.

To apply this varnish to articles or ornaments of brass, expose them to a gentle heat, and dip them into varnish. Two or three coatings may be applied in this manner, if necessary. The varnish is durable, and has a beautiful color. Articles varnished in this manner, may be cleaned with water and a bit of dry rag.

Paste for Cleaning Metals.

Take oxalic acid, 1 part; rotten stone, 6 parts. Mix with equal parts of train oil and spirits of turpentine to a paste.

Lotion for Itching Chilblains.

Take hydrochloric acid, 1 part; water, 8 parts. Mix. Apply on going to bed. This must not be used if the skin is broken.

Watchmaker's Oil, which never Corrodes or Thickens.

Take olive oil and put it into a bottle, then insert coils of thin sheet lead. Expose it to the sun for a few weeks, and pour off the clear.

Varnish for Water Color Drawings.

Take Canada balsam, 1 part; oil of turpentine, 2 parts, mixed; size the drawing before you apply the varnish.

Ring Worm,

May be, in most cases, simply cured by scratching around the outer surface with the point of a sharp pin. The disease will not pass the line, if the skin is thus cut.

Growth of Hair Increased, and Baldness Prevented.

Take 4 ounces of castor oil, 8 do. good Jamaica rum, 30 drops oil of lavender, or 10 do. oil of rose; anoint occasionally the head, shaking well the bottle previously.

Ants.

A small quantity of green sage, placed in the closet, will cause red ants to disappear.

To hasten the Ripening of Wall Fruit.

Paint the wall black.

Flour Paste.

Water, 1 quart; alum, 3-4 ounce. Dissolve, and when cold, add flour to make it of the consistence of cream, then bring it to a boil, stirring it all the while.

Hard Flour Paste.

To the above add a little powdered resin and a clove or two before boiling. This will keep for twelve months. When dry it may be softened with water.

To Preserve Flowers in Salt.

Common salt, 3 pounds; flowers, 10 gallons. Beat them to a paste, and preserve it in wide-mouthed jars or bottles. This plan furnishes the perfumer with flowers at any season of the year. The scent is not only much improved, but the flowers rendered more suitable for the purposes of distillation.

To Extinguish Fire.

Dissolve pearlash, soda, wood-ashes, or common salt in the water, before it is put into the engine, and direct the jet on the burning wood work. The proportion may be twenty pounds to every fifty gallons; the more, however, the better.

Ointment for Chaps and Eruptions of the Skin.

Simmer ox-marrow over a fire, and afterwards strain it through a piece of muslin into gallipots. When cold, rub the part affected.

Water-Proof Glue.

1. Glue, 1 part; skimmed milk, 8 parts. Melt and evaporate in a water-bath to the consistence of strong glue.

2. Glue, 12 parts; water sufficient to dissolve. Then add yellow resin, 3 parts, and when melted, add turpentine, 4 parts. Mix thoroughly together. This should be done in a water-bath.

Antidote for Arsenic.

Swallow the whites of three or four eggs immediately.

To Prevent Depradations by Hawks.

One or more guinea-hens in a flock of fowls it is said will effectually prevent molestation from hawks.

To Prevent Mildew in Wheat.

Sulphate of copper, 1 pound; water, 4 gallons. Dissolve, and steep the grain in it for one hour.

Warts in Horses and Cattle.

Wash them with a strong ley, made of pearlash and water, thrice a day.

Water-Proof Varnish for Boots, Shoes, &c.

Linseed oil, 8 parts; boiled oil, 10 parts; suet, 8 parts; beeswax, 8 parts. Mix with heat and apply hot.

To Save Oats in Feeding Horses.

Bruise or crush your oats in a mill, or otherwise, as convenient, and your horse will become fatter on half his usual allowance of these oats, than he was before on double the quantity unprepared. If you cannot bruise the oats, pour hot water on them and let them soak for a few hours.

To Prevent the Formation of Crust on Tea-Kettles.

Keep an oyster-shell in your tea-kettle, and it will prevent the formation of a crust on the inside of it, by attracting the stony particles to itself.

To Take Rust out of Steel.

Cover the steel with sweet oil well rubbed on it, and in forty-eight hours use unslacked lime finely powdered, to rub until all the rust disappears.

When a Nail or Pin has been run into the Foot,

Instantly bind on a rind of salt pork; if the foot swell, bathe it in a strong decoction of wormwood, then bind on another rind of pork, and keep quiet till the wound is well. The lockjaw is often caused by such wounds, if neglected.

Cream.

The quantity of cream on milk may be greatly increased by the following process: Have two pans ready in boiling hot water, and when the new milk is brought

in, put it into one of these hot pans and cover it with the ether. The quality as well as the thickness of the cream is improved.

To Preserve Green Currants.

Currants may be kept fresh for a year or more, if they are gathered when green, separated from the stems, put into dry, clean junk bottles, and corked very carefully, so as to exclude the air. They should be kept in a cool place in the cellar.

To Loosen the Stoppers of Decanters and Smelling Bottles that are Wedged in Tight.

Dip the end of a feather in oil, and rub it round the stopple, close to the mouth of the bottle; then put the bottle about a couple of feet from the fire, having the mouth towards it. The heat will cause the oil to run down between the stopple and mouth of the bottle. When warm strike the bottle gently on both sides, with any light wooden instrument that you may happen to have. If the stopple cannot be taken out with the hand at the end of this process, repeat it, and you will finally succeed by persevering in it, however firmly it may be wedged in.

To Clean Marble Fire-Places.

If you happen to live in a house which has marble fire-places, never wash them with suds; this destroys the polish, in time. They should be dusted; the spots taken off with a nice oiled cloth, and then rubbed dry with a soft rag.

To Prevent the Ill Effects of Charcoal.

Set an uncovered vessel filled with boiling water over the pan containing the charcoal, the vapor of which will counteract the deleterious fumes, and, while it keeps boiling, will make the charcoal as safe as any other fuel.

Whooping Cough.

Equal parts of lamp oil and molasses, is an excellent remedy, or a tea-spoonful of castor oil to a table-spoonful of molasses; a tea-spoonful of the mixture to be given whenever the cough is troublesome. It will af-

for a relief at once, and in a few days it effects a cure. The same remedy relieves the croup, however violent the attack.

To Prepare Pure Lard.

Get good white lard. Wash it in cold water, then put it into warm water and shake them well together, to wash out the salt; let them cool, then collect the lard from the top of the water, drain it, melt it again in a water bath, let it remain so for half an hour, and then pour off the clearest portion and preserve it from the air.

To stop a Fit of Coughing.

A correspondent of the London Medical Gazette, states that to close the nostrils with the thumb and finger during expiration, leaving them free during inspiration, will relieve a fit of coughing in a short time.

Tomato Pickles.

Take tomatoes when two thirds ripe; prick them full of holes with a fork; then make a strong brine, boil and skim it. When cool, put your tomatoes in; let them remain eight days, and then take out and put them in weak vinegar. Let them lay twenty-four hours; then take them out and lay a layer of tomatoes, then a thin layer of onions, with a tea-spoonful each of cinnamon, cloves, and pepper, and a table spoonful of mustard; then pour on sharp vinegar. You may put them in jars if you like.

To Remove Paint from the Wall of a Room.

If you intend papering a painted wall, you must first rub off all the paint—otherwise the paper will not stick. To do this, mix in a bucket a sufficient quantity of pearlash, with either warm or cold water, so as to make a strong solution. Dip a flannel into this, and with it wash off the paint.

To prevent Wounds from Mortifying.

Sprinkle sugar on them. The Turks wash fresh wounds with wine, and sprinkle sugar on them. Obstinate ulcers may be cured with sugar dissolved in a strong decoction of walnut leaves.

Grafting.

Melt beeswax and tallow together, stirring in a little chalk if handy; while hot dip in some strips of rags; then tear them into strips suitable to prevent the escape of the sap or the introduction of water, and the work is finished.

To take off Wall Paper.

To clear a wall from paper, previous to painting or white-washing, wet the paper thoroughly, with a long-handled brush dipped in a bucket of warm water. While the paper is quite wet, so that it blisters and loosens, you can pull it off with your hands. If any small bits are found still adhering, wet them afresh, and scrape them off with a case-knife.

To Prevent the Clothes of Children from Taking Fire.

"The danger and difficulty can very easily be avoided by the use of alum.

"When clothes are washed they should be rinsed out in alum water—the solution should be made tolerably strong. If the clothing, which has been newly washed, should require starch, the alum may be put in the starch water.

"Alum should be used on all occasions; it renders the clothing fire-proof. All clothing about a house or steamboat made of cotton should be impregnated with alum. For instance, bed, and window curtains, &c., such articles generally having much fringe about them.

"This hint, if attended to, will prove a perfect safety to clothing from fire."

For the Bite of a Snake.

Take the bark of yellow poplar and bruise it, and make a poultice of it and apply it to the wound, bathing the arm or leg that is bitten with a strong decoction of the same, and let the person afflicted drink half a pint every hour. This is a safe and easy remedy, and will effect a cure in a short time.

Another.

Charcoal made into a paste with hog's lard, is a grand antidote for snake bites. In bad cases it should be

changed often. It will probably prove effectual for the sting of bees and all other similar cases of poison.

Substitute for Cream.

Beat up the whole of a fresh egg in a basin, and then pour boiling tea or water over it gradually, to prevent it curdling. In flavor and richness this preparation resembles cream.

Easy Method of Restoring and rendering Legible damaged Parchment Deeds, &c.

When a parchment deed becomes obliterated and discolored by moisture, on simply immersing it in spring water, for about a minute, then pressing it between sheets of blotting paper, to prevent its shrivelling up while getting dry ; it will generally, when it has nearly approached that state, be found to have resumed its original color, and appear as perfectly plain, but should the characters not prove legible on its becoming moderately dry, the operation must be repeated as often as it may be necessary. The following mixture, it is asserted, will make writing which has been obliterated, faded, or sunk, either on paper or on parchment, immediately legible. Bruise two or three nutgalls, infuse them in half a pint of wine, and let the bottle stand for two days in the sun or in any other equally warm situation ; then wash the part of the parchment or paper which is wanted to have the writing recovered, by means of a sponge or soft brush dipped in the vinous infusion ; and the purpose will be immediately answered if it be sufficiently strong. Should that not happen, its power must be increased by an additional quantity of galls ; and, perhaps, in some cases, stronger heat and even stronger wine, may also be necessary.

Whitewash.

Take half a bushel of unslacked lime, and slack it with boiling not water, covering it during the process. Strain it, and add a peck of salt dissolved in warm water ; three pounds of ground rice boiled to a thin paste, put in boiling hot ; half a pound of powdered Spanish whiting, and a pound of clear glue, dissolved in warm

water. Mix, and let it stand several days. Then keep it in a kettle on a portable furnace, and put on as hot as possible, with a painter's or a whitewash brush.

A Fine Yellow Wash.

Lime-water, 1 pound; bichloride of mercury, 40 grains. Rub together. Shake the bottle before use. Used for syphilitic ulcers.

To Wash White Merino Shawls.

Wash the shawl in fair suds made beforehand, rub no soap on the shawl, rinse in clear warm water, with two changes if you please; then take a solution of gum arabic, and add to it warm water till you think it will produce a little stiffness like starch when dry. Press with a moderately hot iron, before quite dry, laying a clean cotton or linen cloth between the iron and the shawl.

To Prevent the Hair Falling Off.

Wash the head once a day with good old Jamaica rum.

Renovation of Manuscripts.

Take a hair pencil and wash the part which has been effaced with a solution of prussiate of potash in water, and the writing will again appear, if the paper has not been destroyed.

A Cure for Sore Backs of Horses.

The best method of curing sore backs, is to dissolve half an ounce of blue vitriol in a pint of water, and dab the injured parts with it four or five times a day.

Composition for Restoring Scorched Linen.

Boil to a good consistency, in half a pint of vinegar, two ounces of Fuller's earth, an ounce of hen's dung, half an ounce of cake soap, and the juice of two onions. Spread this composition over the whole of the damaged part; and if the scorching were not quite through, and the threads actually consumed, after suffering it to dry on, and letting it receive a subsequent good washing or two, the place will appear full as white and perfect as any other part of the linen.

To improve Bad Yeast.

Add a little flour and sugar, and let them work together for a short time.

To cure Hydrophobia.

Make a strong wash by dissolving two table-spoonsful of the chloruret of lime in half a pint of water, and instantly and repeatedly bathe the part bitten. The poison will in this way be decomposed. It has proved successful when applied within six hours after the animal has been bitten. I wish these facts generally known, as they may be of service to our fellow-citizens at large.

To make Vegetables eat Tender.

Put a spoonful or two of pearlash or soda into the water you boil them in.

To Pickle Vegetables in Brine.

Take the articles to be preserved and put them into pickle bottles, fill them with a strained saturated solution of common salt, and cork immediately.

To preserve or pickle Vegetables in Vinegar.

Soak them for some hours in brine, then drain them, put them into bottles, and pour on them boiling vinegar until quite covered. Cork immediately.

To prepare Intestines for Sausages.

Take the intestines, cut off the extraneous fat and peritoneal membrane, turn them inside out and wash them clean, then soak them for twenty-four hours in a pail of water, to which a little chloride of lime or potass has been added; then tear off a part of the mucous membrane to thin them, and wash them well in two or three pails of clean water.

Cephalic Snuff.

1. Take asarabacca leaves, marjoram, light Scotch snuff, equal parts. Grind them, and sift the resulting powder.

2. Take powdered asarum, 1 pound; powdered Scotch snuff (dry), 1 1-2 pounds; simple powder. 2 pounds; hellebore, 4 ounces. Mix and sift.

To destroy Slugs on Land.

Sprinkle over it powdered fresh slaked lime, or chimney soot.

To preserve Plants from Slugs.

Strew well-cut chaff round the plants.

To give an appearance of Age to Writing.

Infuse a drachm of saffron in half a pint of ink, then write with it.

To clean Point Lace.

Stretch it in a tent, and clean it with a solution of white soap; wash off the soap with water, and sponge it with starch on the wrong side; when dry, iron it on the same side, then with a bodkin set it in order.

To Preserve Steel Goods.

Caoutchouc, 1 part; turpentine, 16 parts. Dissolve with a gentle heat, then add boiled oil, 8 parts. Mix by bringing them to the heat of boiling water; apply it to the steel with a brush, in the way of varnish. It may be removed when dry with turpentine. The oil may be wholly omitted.

To Prevent the Bite of Musquitoes.

Apply a thick lather of soap to the skin of the face and hands.

To mend Cracks in Stoves.

German Method.—Take equal parts of wood ashes and common salt, and mix them to a proper consistence with water; with this fill the cracks.

Strengthening Plaster.

1 Simple diachylon, 22 pounds; thuris, 5 pounds; dragon's blood, 2 pounds. Mix.

2. Diachy'on, 20 pounds; gum thuris, 4 pounds; peroxide of iron, 2 pounds. Mix. This is a cheap form for the emplastrum thuris of the Dublin College.

3. Diachylon, 80 pounds; gum thuris, 29 pounds; Armenian bole, 5 pounds. Mix with heat. Said to be used as a mechanical support to the muscles by public dancers.

To Restore Tainted Meat.

If salted, wash it, and throw away the old brine, then replace it with the following composition, and let it lie in it for a few days: Fresh-burnt charcoal, powdered, 12 parts; common salt, 11 parts; saltpetre, 4 parts. Mix. This must be used the same as common salt; and when you want to cook the meat, the black color may be removed with clean water.

To Whiten Tallow.

Take the tallow, melt it, and add a little alum and saltpetre, or a little nitric or sulphuric acid.

Easy Mode of Smoking Meat.

Take pyroligneous acid, and either immerse the meat in it for a short time, or give it two or three coats with a painter's brush; then hang it up to dry.

To Cure Smoky Chimneys.

1. Contract the draught. This is infallible, if properly done.

2. Increase the height or crookedness of the chimney. The more turns a chimney has, the greater is (usually) the draught.

Wash for Sore Eyes in Animals.

White vitriol, 2 scruples; sugar of lead, 1 drachm; water, 1 pint. Mix.

To prevent the Smut in Wheat.

Steep the grain in lime-water, or a weak ley of wood-ashes, or pearlash.

Soda Water.

Take clear water, and force into it by means of a pump, from six to ten times its bulk of carbonic acid gas, obtained from marble; cork and wire the bottles. Soda water should always be kept in a cool place, with the neck of the bottle downwards.

To make Prints and Drawings to resemble Oil Paintings.

Canada balsam, 1 part; turpentine, 2 parts. Mix and apply it to the paper or print, previously well sized and dried.

Method of Cleaning Brass Ornaments.

Brass ornaments, that have not been gilt or lacquered, may be cleaned, and a very brilliant color given to them, by washing them with alum boiled in strong ley, in the proportion of an ounce to a pint, and afterwards rubbing them with strong tripoli.

Frost Counteracted.

As the blossoms of fruit trees are more particularly affected by early frosts, the following plan has been recommended to counteract the injurious effects of the same :—A rope is to be interwoven among the branches of the tree, and one end of it immersed in a pail of water. This rope it is said will act as a conductor and convey the effects of the frost from the tree to the water. Both hemp and straw have been recommended for this purpose.

Files and Rasps.

Files and other instruments for the abrasion of various substances, may be made by folding up separate pieces of wet clay in muslin, cambric, and Irish linen, forcing them by the pressure of the hand into the interstices or the threads, so that on divesting them of the covering, and having them well baked, a file is produced of a new species, said to be capable of operating on steel; and very useful in cutting glass, polishing, and rasping wood, ivory, and all sorts of metals.

Preservation of Fruits by Carbonic Acid Gas.

Cherries, grapes, pears, apples and chestnuts, (and perhaps all other fruits,) placed in glass vessels filled with this gas, obtained from carbonate of lime by sulphuric acid, are said to be preserved without undergoing any change for a long period. Cherries, at the end of six weeks, had the same appearance as when preserved in brandy.

To prevent Pumps and Water-Pipes freezing in Winter.

Take up the valve or sucker, and let all the water out of the trunk or pipe.

Weak Sight.

Beat up a drachm of alum in the white of an egg, and smear the eye-brow and eye-lid every night with the mixture.

Locked Jaw.

It is said that the application of warm ley, made of ashes as strong as possible, to a wounded part, will prevent a lock jaw; if a foot or hand, immersed in it; if another part of the body, bathed with flannels wrung out from the warm ley.

An Incomparable Medicine for the Scurvy in the Teeth.

Take a quart of good white-wine vinegar, heat a piece of steel red-hot, and quench it eight or ten times in the vinegar, as fast as you can heat it; then add to this liquor an ounce of powdered myrrh, and half an ounce of mastic, powdered; wash your teeth twice or thrice a day.

To make the Hair grow Thick.

Take rosemary, maiden-hair, southern wood, myrtle berries, hazel-bark, of each, 2 ounces; burn these to ashes on a clean hearth, or in an oven; put these ashes in white-wine, to make a strong ley, and wash the hair daily at the root; keep it cut pretty short. It kills the worm which is at the root.

Hoarseness.

One drachm of freshly-scraped horseradish root, to be infused with four ounces of water in a close vessel for two hours, and made into a syrup with double its weight in vinegar, is an approved remedy for hoarseness; a tea-spoonful has often proved effectual; a few tea-spoonsful, it is said, have never been known to fail in removing hoarseness.

Mortar.

Much of the mortar used in building is said to be imperfectly made. Four parts coarse and three parts fine sand, with one part of quick-lime, well mixed with but little water, makes mortar which soon becomes as hard as adamant; resisting all atmospheric action as durably

as the material it unites ; and with addition of a portion of manganese, it will harden under water.

Cure for Cancer.

Take the narrow-leaved dock-root, boil it in soft water, and wash the ulcer with the strong decoction as warm as it can be borne ; fill the cavity with the liquor for two minutes ; then scrape the hulk of the root, bruise it fine, put it on gauze, and lay it over every part of the ulcer ; dip a linen cloth in the decoction, and put it over the gauze. Repeat this three times in twenty-four hours, and at each time let the patient take a wine-glass of the tea made of the root with one-third of a glass of port wine sweetened with honey.

To make the Celebrated Pomade Divine.

Beef marrow, twelve ounces, steeped in water ten days, and afterwards in rose water twenty-four hours ; flowers of benjamin, pounded storax, and Florentine orris, and cloves and nutmeg, a quarter of an ounce. The whole to be put in an earthen vessel, closely covered down, to keep in the fumes, and being suspended in water made to boil three hours ; after which the whole is to be strained and put into bottles.

To Clean Oil Paintings.

If smoked, or very dirty, take stale urine, in which a little common salt is dissolved ; rub them over with a woollen cloth dipped in that till you think them quite clean, then with a sponge wash them over with fair water ; then dry them and rub them over with a clean cloth.

To Cure a Bruise in the Eye.

Take conserve of red roses, and also a rotten apple, put them in a fold of thin cambric, apply it to the eye, and it will draw the bruise out.

To Sweeten the Breath.

Take two ounces of terra japonica ; half an ounce of sugar-candy, both in powder. Grind one drachm of the best ambergris, with ten grains of pure musk, and dissolve a quarter of an ounce of clean gum tragacanth in

two ounces of orange-flower water. Mix all together, so as to form a paste, which roll into pieces of the thickness of a straw. Cut these into pieces, and lay them in clean paper. This is an excellent perfume for those whose breath is in any way disagreeable.

For a Pain in the Ear.

Oil of sweet almonds, two drachms, and oil of amber, four drops ; apply four drops of this mixture when in pain, to the part affected.

To make the Teeth White.

A mixture of honey with the purest charcoal, will prove an admirable cleanser.

To Revive a Dull Fire.

Powdered nitre, or saltpetre, strewed on the fire, is the best bellows that can be used.

To Wash Chintz.

Take two pounds of rice, boil it in two gallons of water till soft ; then pour the whole into a tub ; let it stand till about the warmth in general used for coloring linens ; then put the chintz in, and use the rice instead of soap ; wash it in this till the dirt appears to be out, then boil the same quantity as above, but strain the rice from the water, and mix it in warm clear water. Wash in this till quite clean ; afterwards rinse it in the water which the rice has been boiled in, and this will answer the end of starch, and no dew will affect it. If a gown, it must be taken to pieces, and when dried be careful to hang it as smooth as possible ; after it is dry, rub it with a sleek stone, but use no iron.

Eggs—as a Remedy.

The white of an egg is said to be a specific for fish bones sticking in the throat. It is to be swallowed raw, and will carry down a bone very easily and certainly.

There is another fact touching eggs which it will do very well to remember. When, as sometimes by accident, corrosive sublimate is swallowed, the white of one or two eggs taken immediately, will neutralize the poison, and change the effect to that of a dose of calomel.

Court Plaster.

1. Balsam of benzoin, 1 part; alcohol, 12 parts. Mix. Then isinglass, 2 parts; water, barely to dissolve. Strain the two solutions separately, then mix them. For use, place the bottle in warm water, and give the silk, previously strained, ten or twelve coats with a brush; when dry, give it a coat of the following: Chia turpentine, 1 part; tincture of benzoin, 2 parts. Mix.

2. Thick mucilage, 8 ounces; thick syrup, 1 ounce; tincture of benzoin, 1 ounce. Mix. Apply as before.

3. Isinglass, 4 ounces; water, 3 ounces. Dissolve, then add tincture of benzoin, 1 ounce. Apply warm.

4. Isinglass, 1 ounce; gum arabic, 4 ounces; water, 6 ounces. Dissolve, then add balsam of Peru, 2 drachms. Apply warm.

5. Isinglass, 1 ounce; water, 4 ounces. Dissolve, and add alcohol, 8 ounces; tincture of benzoin, 2 ounces. Give the silk, previously strained, four or five coats with this varnish, and when dry, two coats of the following to finish: Chia turpentine, 4 ounces; tincture of benzoin, 6 ounces. Mix.

6. Spread either of the compositions on goldbeaters' skin instead of silk.

To prevent Distilled Waters turning Sour.

To every gallon add one ounce of finely powdered calcined magnesia, and shake them well together; then allow the mixture to settle.

To Solder Tortoise-shell.

Bring the edges of the pieces of shell to fit each other, observing to give the same inclination of grain to each; then secure them in a piece of paper, and place them between hot irons or pincers; apply pressure, and let them cool. The heat must not be so great as to *burn* the shell; therefore try it first on a piece of white paper.

A certain Remedy to take Fire out of a Burn.

Beat an apple with salad oil until it is a poultice, pretty soft; bind it on the part, and as it dries lay on fresh. You must be sure to pare, core, and beat your apple well, for fear of breaking the skin of the burn. But if

the skin be off, there is nothing in nature so sure to take out the fire.

Paper that Resists Moisture.

Take unsized paper, lay it flat on a clean surface, and brush it over with a solution of mastic in oil of turpentine; or plunge it into the solution and hang it up to dry. This paper possesses all the usual qualities of writing paper, with the advantage of resisting moisture.

Composition to Heal Wounds in Trees.

Chalk, 4 parts; tar, 2 parts; brick-dust, 1 part. Melt, and apply warm.

Papier Mache.

Take paper, any quantity; boil it well, then pound it to a paste, and mould. Used in making toys, snuff-boxes, &c.

Fire-proof Stucco for Wood, &c.

Take moist, gravelly earth, (previously washed,) and make it into stucco with the following composition: Pearlashes, 2 parts; water, 5 parts; common clay, 1 part. Mix. This costs about one shilling and sixpence per hundred square feet. It has been tried on a large scale, and found to answer.

Rules for Preserving Health.

1. Rise early, and never sit up late.
2. Wash the whole body every morning with cold water, by means of a large sponge, and rub it dry with a rough towel; or scrub the whole body for ten or fifteen minutes with flesh brushes.
3. Drink water generally, and avoid excess of spirits, wine, and fermented liquors.
4. Keep the body open by the free use of the syringe, and remove superior obstructions by aperient pills.
5. Sleep in a room which has free access to the open air.
6. Keep the head cool, by washing it when necessary with cold water, and abate feverish and inflammatory symptoms when they arise by persevering stillness.
7. Correct symptoms of plethora and indigestion by eating and drinking less per diem for a few days.

8. Never eat a hearty supper, especially of animal food; and drink wine, spirits, and beer, if these are necessary, only after dinner.

Paper Prepared for Draughtsmen, &c.

Powdered tragacanth, 1 part; water, 10 parts. Dissolve, and strain through clean gauze; then lay it smoothly with a painter's brush on the paper, previously stretched on a board. This paper will take either oil or water colors.

Panes of Glass

May easily be removed by the application of soft soap for a few hours, however hard the putty has become.

Peach Trees.

Plant tansy around the roots of peach trees. The peach worm will not trouble them afterwards.

An Insect Trap.

Scoop out the inside of a turnip, scollop the edge of the shell, and place it downward on the earth. The insects will pass into it as a place of retreat, through the holes; and the beds of squashes, melons, cucumbers, &c., may thus soon be cleared of them.

To Escape from or go into a House on Fire.

Creep or crawl with your face near the ground; and although the room be full of smoke to suffocation, yet near the floor the air is pure, and may be breathed with safety.

To prevent the Smoking of a Lamp.

Soak the wick in strong vinegar, and dry it well before you use it.

To warm a Carriage or small Apartment.

Convey into it a stone bottle of boiling water; or for the feet, a single glass bottle of boiled water, wrapped in flannel.

To Preserve Furs.

When laying up muffs and tippets for the summer, if a tallow candle be placed on or near them, all danger of caterpillars will be obviated.

To Preserve Clothes.

As clothes when laid up for a time acquire an unpleasant odor, which requires considerable exposure to the atmospheric air, it will be prevented by laying recently made charcoal between the folds of the garments; and even when the odor has taken place, the charcoal will absorb it.

To remove Stains from Mourning Dresses.

Boil a good handful of fig leaves in two quarts of water, till reduced to a pint. Bombazine, crape, cloth, &c., need only be rubbed with a sponge dipped in the liquor, and the effect will be instantly produced.

To Clean Gold Lace.

Gold lace is easily cleaned and restored to its original brightness by rubbing it with a soft brush dipped in roche alum burnt, sifted to a very fine powder.

To Clean China and Glass.

The best material for cleaning either porcelain or glass-ware is fullers' earth; but it must be beaten into a fine powder, and carefully cleared from all rough or hard particles, which might endanger the polish of the brilliant surface.

To explore Unventilated Places.

Light some sheets of brown paper, and throw into the well or cavern; also, fix a long pipe to a pair of bellows, and blow for some time into the place.

To make Red Sealing Wax.

Take of shell-lac, well powdered, two parts; of resin and vermilion, powdered, each 1 part. Mix them well together and melt them over a gentle fire; and when the ingredients seem thoroughly incorporated, work the wax into sticks. Where shell-lac cannot be procured, seed-lac may be substituted for it.

The quantity of vermilion may be diminished without any injury to the sealing wax, where it is not required to be of the highest and brightest red color; and the resin should be of the whitest kind, as that improves the effect of the vermilion.

Black Sealing Wax.

Proceed as directed for the red wax, only instead of the vermilion substitute the best ivory black.

Green Sealing Wax.

Instead of vermilion use verdigris powdered.

Blue Sealing Wax.

Smalt well powdered; or for a light blue, verditer may be used.

To determine whether Water be Hard or Soft.

To ascertain whether or not water be fit for domestic purposes, to a glassful of the water add a few drops of the solution of soap in alcohol. If the water be pure, it will continue limpid; if impure, white flakes will be formed.

To manage Water-pipes in Winter.

When the frost begins to set in, cover the water-pipes with hay or straw bands, twisted tight round them.

To bring Horses out of a Stable on Fire.

Throw the harness or saddles to which they have been accustomed over the backs of the horses in this predicament, and they will come out of the stable as tractably as usual.

To clean Looking-glasses, Mirrors, &c.

Take a piece of soft sponge, well washed and cleaned from every thing gritty; just dip it into water and squeeze it out again, and then dip it into some spirits of wine. Rub it over the glass; dust it over with some powder blue, or whiting sifted through muslin; rub it lightly and quickly off again with a cloth; then take a clean cloth and rub it well again, and finish by rubbing it with a silk handkerchief.

Immediate Treatment of Scalds and Burns.

Without waiting to undress the patient, let every part that has been touched by the fire or scalding liquid be immersed, as speedily as possible, in cold water; or if it cannot be placed in that liquid, let a copious stream be poured over it, until the clothes are thoroughly cooled

Remedy for Sea-Sickness.

Take as much Cayenne pepper as you can rightly bear, in a basin of hot soup, and, it is said, all sickness, nausea, and squeamishness will disappear.

Embrocation for Sprains in Horses.

Take of soap liniment and camphorated spirit of wine, of each 8 ounces, oil of turpentine, 1-2 an ounce. Mix, and shake when used.

This evaporating and discutient embrocation is well calculated to remove pain and inflammation, which is generally effected in the course of a fortnight or three weeks; during that time the horse should not be allowed to go out of the stable or farm-yard.

The Foot-Rot in Sheep.

Take a piece of alum, a piece of green vitriol, and some white mercury—the alum must be in the largest proportion; dissolve them in water, and after the hoof is pared, anoint it with a feather, and bind on a rag over all the foot.

To Prevent Sheep from Catching Cold after being Shorn.

Mix salt with water and rub them all over.

To Bleach Prints and Printed Books.

Simple immersion in oxygenated muriatic acid, letting the article remain in it a longer or shorter space of time, according to the strength of the liquor, will be sufficient to whiten an engraving; if it is required to whiten the paper of a bound book, as it is necessary that all the leaves should be moistened by the acid, care must be taken to open the book well, and to make the boards rest on the edge of the vessel, in such a manner that the paper alone shall be dipped in the liquid; the leaves must be separated from each other, in order that they may be equally moistened on both sides.

To Wash Fine Lace or Linen.

Take a gallon of fūze blossoms and burn them to ashes, then boil them in six quarts of soft water; this, when fine, use in washing with the suds, as occasion re

quires, and the linen, &c., will not only be exceedingly white, but it is done with half the soap, and little trouble.

To Dye or Stain Horn Tortoise-Shell Color.

The horn to be dyed must be first pressed into proper plates, scales, or other flat form, and the following mixture prepared: Take of quick-lime two parts, and li-charge one part, temper them together to the consistence of a soft paste, with soap-ley. Put this paste over all the parts of the horn, except such as are proper to be left transparent, in order to give it a near resemblance to the tortoise-shell. The horn must remain in this manner, covered with the paste, till it is thoroughly dry; when, the paste being brushed off, the horn will be found partly opaque and partly transparent, in the manner of tortoise-shell, and when put over a foil of the kind of lattern called orsedue, will be scarcely distinguishable from it. It requires some degree of fancy and judgment to dispose of the paste in such a manner as to form a variety of transparent parts, of different magnitudes and figures to look like the effect of nature: and it will be an improvement to add semi-transparent parts, which may be done by mixing whiting with some of the paste, to weaken its operation in particular places, by which spots of a reddish-brown will be produced, which, if properly interspersed, especially on the edges of the dark parts, will greatly increase the beauty of the work, and its similitude to real tortoise-shell.

Another Method.

Take an equal quantity of quick-lime and red lead, and mix it up with strong soap lees. Lay it on the horn with a small brush, like the mottle in tortoise-shell. When dry, repeat the same two or three times.

To Dye White Gloves Purple.

Boil four ounces of logwood and two ounces of roche alum in three pints of soft water, till half wasted. Let the liquor stand to cool after straining. Let the gloves be nicely mended, then with a brush rub them over, and when dry, repeat it. Twice is sufficient, unless the color is to be very dark; when dry, rub off the loose dye

with a coarse cloth ; beat up the white of an egg, and with a sponge rub it over the leather. The dye will stain the hands, but wetting them with vinegar before they are washed will take it off.

To Dye Bristles or Feathers Green.

Take of verdigris and verditer, each 1 ounce, gum water, 1 pint ; mix them well, and dip the bristles or feathers, they having been first soaked in hot water, into the said mixture.

Blue.

Take of indigo and risse, each 1 ounce, and a piece of alum the size of a hazel nut ; put them into gum water, and dip the materials into it hot, hang them up to dry, and clap them well that they may open, and by changing the colors, the aforesaid materials may be in this manner dyed of any color ; for purple, use lake and indigo ; for carnation, vermilion and smalt.

Red.

Take an ounce of Brazil wood in powder, half an ounce of alum, a quarter of an ounce of vermilion, and a pint of vinegar ; boil them up to a moderate thickness, and dip the bristles or feathers, they having been first soaked in hot water, into the said mixture.

To Dye or Color Horse Hair.

Steep in water wherein a small quantity of turpentine has been boiled for the space of two hours ; then, having prepared the colors very hot, boil the hair therein, and any color, black excepted, will take ; but that will only take a dark red, or dark blue, &c.

To Turn Red Hair Black.

Take a pint of the liquor of pickled herrings, half a pound of lamp-black, and two ounces of the rust of iron. Mix and boil them for twenty minutes, then strain and rub the liquid well into the roots of the hair.

To Prevent Horses being Teased by Flies.

Take two or three small handfuls of walnut leaves, upon which pour two or three quarts of cold water ; let it infuse one night, and pour the whole next morn

ing into a kettle, and let it boil for a quarter of an hour; when cold, it will be fit for use. No more is required than to moisten a sponge, and before the horse goes out of the stable, let those parts which are most irritable be smeared over with the liquor, viz., between and upon the ears, the neck, the flank, &c. Not only the lady or gentleman who rides out for pleasure, will derive benefit from this preparation, but the coachman, the wagoner, and all others who use horses during the hot months.

Liniment for the Galled Backs of Horses.

White-lead moistened with milk. When milk is not to be procured, oil may be substituted. One or two ounces sufficed for a whole party for more than a month.

Fattening Turkeys.

Experiments have been successfully tried of shutting up turkeys in a small apartment made perfectly dark. They were fattened, it is said, in one quarter of the usual time. The reason assigned is, that they are thus kept still, and have nothing to attract their attention.

Blasting Rocks.

Saw-dust of soft wood, mixed with gunpowder in equal parts, is said to have thrice the strength of gunpowder alone, when used in blasting.

Cure for Founder.

The seeds of sunflower are the best remedy known for the cure of founder in horses. Immediately on discovering that your horse is foundered, mix about a pint of the whole seed in his feed, and it will give a perfect cure.

To Remove Tar, Pitch, or Turpentine.

Scrape off as much as you can; then wet the place thoroughly with good salad oil, and let it remain for twenty-four hours. If linen or cotton, wash it out in strong warm soap-suds; if woollen or silk, take out the oil with ether or spirits of wine.

If the stain is of tar, you may remove it (after scraping and wiping) by using cold tallow instead of sweet

oil. Rub and press well on the spot a small lump of good tal'ow, and leave it sticking there till next day. Then proceed as above.

To Wash Bobbinet or Cotton Lace.

Rip off the lace, and roll it round a bottle smoothly covered with white linen or muslin. Then fill the bottle with water, cork it tightly, and suspend it in a kettle of cold soap-suds, made with castile soap. Boil moderately until the lace looks perfectly white, which will be in about half an hour. Then drain off the suds, and set the bottle in the sun till the lace dries on it.

To Wash Thread Lace.

Rip off the lace, carefully pick out the loose bits of thread, and roll the lace very smoothly and securely round a clean black bottle, previously covered with old white linen, sewed tightly on. Tack each end of the lace with a needle and thread, to keep it smooth; and be careful in wrapping not to crumple or fold in any of the scollops or pearlings. After it is on the bottle, take some of the *best* sweet oil, and with a clean sponge wet the lace thoroughly to the inmost folds.

Have ready in a wash-kettle, a strong *cold* lather of clear water and white Castile soap. Fill the bottle with cold water, to prevent its bursting, cork it well, and stand it upright in the suds, with a string round the neck secured to the ears or handle of the kettle, to prevent its knocking about and breaking while over the fire. Let it boil in the suds for an hour or more, till the lace is clean and white all through. Drain off the suds, and dry it on the bottle in the sun. When dry remove the lace from the bottle and roll it round a white ribbon-block; or lay it in long folds, place it within a sheet of smooth white paper, and press it in a large book for a few days.

Cure for Summer Complaint.

Six drops of laudanum to half a tumbler full of rice-water; half a tumbler of the mixture to be taken every three or four hours. This simple remedy may be given to infants, children, or at any period of life, and has

never failed to give immediate relief; and, if persevered in for a few days, it invariably effects a cure, however violent the disorder.

Cure for Inflamed Eyes.

Pour boiling water on elder-flowers, and steep them like tea; when cold, put three or four drops of laudanum into a small glass of the elder-tea, and let the mixture run into the eyes three or four times a day. The eyes will become perfectly strong in the course of a week.

Sting of the Bee.

Common waiting proves an effectual remedy against the effects of the sting of a bee or wasp. The whiting is to be moistened with cold water, and applied immediately. It may be washed off in a few minutes, when neither pain nor swelling will ensue.

Preserved Pumpkin.

Stew your pumpkin as usual for pies, spread it thinly upon large open tins or platters, and place them over or under your stove; where, if kept four or five days, it will become dry enough to keep in bags or boxes throughout the year. Pumpkin, preserved in this way, is far superior to that preserved in the old method of drying, making much richer and better flavored pies, besides requiring much less labor.

Varnish for Harness.

Take half a pound of Indian rubber, one gallon of spirits of turpentine, dissolve enough to make it into a jelly by keeping almost new milk warm; then take equal quantities of good linseed oil (in a hot state) and the above mixture, incorporate them well on a slow fire, and it is fit for use.

To Make Whitewash that will not Rub Off.

Mix up half a pail full of lime and water, ready to put on the wall; then take a quarter of a pint of flour, mix it up with water, then pour on it boiling water, a sufficient quantity to thicken it; then pour it while hot, into the whitewash; stir all well together, and it is ready.

To destroy Superfluous Hair.

Take of fresh limestone, 1 ounce; pure potass, 1 drachm; sulphuret of potass, 1 drachm. Reduce them to a fine powder in a wedgewood mortar. If the hair be first washed or soaked in warm water (130 Fahr.) for ten minutes, this article, formed into a thin paste with warm water, and applied whilst warm, will so effectually destroy the hair in five or six minutes, that it may be removed by washing the skin with flannel. It is a powerful caustic, and should therefore be removed as soon as it begins to inflame the skin, by washing it off with vinegar. It softens the skin, and greatly improves its appearance.

A Wash for Sun-burnt Faces and Hands.

To each pound of ox-gall add, roche alum, 1 drachm; rock salt, half ounce; sugar candy, 1 ounce; borax, 2 drachms; camphor, 1 drachm. Mix, and shake well for fifteen minutes, then often daily, for fifteen days, or till the gall is transparent; filter through cap paper; use when exposed to the sun—always washing off before sleep.

Slack Reins.

Never ride or drive with too slack a rein. From a neglect of this rule, horses which are apt to stumble sometimes fall down, to the great danger, if not the injury, of the persons who are riding or driving them. Besides, in the case of fright, or running away, the command of the reins is gone.

Jumping out of Wagons.

Should it be necessary, in consequence of the horse's running away, or any other cause, when riding in a wagon, to quit it hastily, if it be possible, *leap out behind*, taking care not to lean too far forward, which is by far the safest method.

Travelling on Foot.

Those who walk long distances, especially before their feet are well seasoned by the practice, are very liable to have blisters formed at the bottom of them. For this, take a large needleful of worsted, pass it through the blister

from side to side, but leave the ends of the worsted in it, and clip off the remainder. The opening will cause the blister to discharge, and the worsted will keep it open, at the same time that it will prevent the outer skin from sticking to the inner. By this plan, at night, after the day's walk, the traveller will find himself, the next morning, as easy, and as able to walk again, as though nothing had happened. If the feet are merely inflamed, without having any blister raised upon them, it is a good plan to wash them with milk-warm water, just before going to bed.

Cramp.

Cramp in the calves of the legs is a very disagreeable complaint, to which those who have their legs long confined in tight boots are subject in travelling. An effectual preventative of this pain, is to stretch out the heel of the leg as far as possible, at the same time drawing up the toes towards the body.

Spirituuous Sandaric Varnish, for Wainscoting, Small Articles of Furniture, Balustrades, and Inside Railing.

Take gum sandaric, 6 ounces; shell-lac, 2 ounces; colophonium, or resin, white glass pounded, clear turpentine, each 4 ounces; pure alcohol, 32 ounces. Dissolve the varnish according to the directions given for compound mastic varnish.

This varnish is sufficiently durable to be applied to articles destined to daily and continual use. Varnishes composed with copal ought, however, in these cases to be preferred.

To preserve Fish by Sugar.

Fish may be preserved in a dry state, and perfectly fresh, by means of sugar alone, and even with a very small quantity of it.

Fresh fish may be kept in that state for some days, so as to be as good when boiled as if just caught. If dried, and kept free from mouldiness, there seems no limit to their preservation; and they are much better in this way than when salted. The sugar gives no disagreeable taste.

In the preparation, it is barely necessary to open the fish, and to apply the sugar to the muscular parts, placing it in a horizontal position for two or three days, that this substance may penetrate. After this it may be dried; and it is only further necessary to wipe and ventilate it occasionally, to prevent mouldiness.

To Pickle Salmon.

Boil the fish gently till done, and then take it up, strain the liquor, add bay leaves, pepper corns, and salt; give these a boil, and when cold add the best vinegar to them; then put the whole sufficiently over the fish to cover it, and let it remain a month at least.

To Salt Hams.

For three hams, pound and mix together half a peck of salt, half an ounce of salt prunella, three ounces of saltpetre, and four pounds of coarse salt; rub the hams well with this, and lay what is to spare over them; let them lie three days, then hang them up. Take the pickle in which the hams were, put water enough to cover the hams, with more common salt, till it will bear an egg; then boil and skim it well, put it in the salting tub, and the next morning put it in the hams; keep them down the same as pickled pork; in a fortnight take them out of the liquor, rub them well with brine, and hang them up to dry.

To Bottle Damsons.

Put damsons, before they are too ripe, into wide-mouthed bottles, and cork them down tight; then put them into a moderately heated oven, and about three hours more will do them: observe that the oven is not too hot, otherwise it will make the fruit fly. All kinds of fruits that are bottled may be done in the same way, and they will keep two years; after they are done, they must be put away with the mouth downward, in a cool place, to keep them from fermenting.

To Preserve Barberries.

Set an equal quantity of barberries and sugar in a kettle of boiling water, till the sugar is melted and the barberries quite soft; let them remain all night. Put

them next day into a preserving pan, and boil them fifteen minutes; then put them into jars, tie them close, and set them by for use.

To Preserve Grapes.

Take close bunches, whether white or red, not too ripe, and lay them in a jar; put to them a quarter of a pound of sugar candy, and fill the jar with common brandy. Tie them up close with a bladder, and set them in a dry place.

To Clarify Honey.

The best kind is clarified by merely melting it in a water-bath, and taking off the scum; the middling kind by dissolving it in water, adding the white of an egg to each pint of the solution, and boiling it down to its original consistence, skimming it from time to time. The inferior kind requires solution in water, boiling the solution with 1 pound of charcoal to 25 pounds of honey, adding, when an excess of acid is apprehended, a small quantity of chalk or oyster shell powder; next by straining it several times through flannel, and reducing the solution to its original consistence by evaporation.

To preserve Seeds in Honey for Vegetation.

Seeds of fruits, or thin stalk strips, may be preserved by being put into honey; and on being taken out, washed, and planted, they will vegetate freely.

To preserve Fruits in Brandy or other Spirits.

Gather plums, apricots, cherries, peaches, and other juicy fruits, before they are perfectly ripe, and soak them for some hours in hard, or alum water, to make them firm; as the moisture of the fruit weakens the spirit, it ought to be strong; therefore, add five ounces of sugar to each quart of spirit.

To preserve Cucumbers and Melons.

Take large cucumbers, green, and free from seed, put them in a jar of strong salt and water, with vine leaves on the top, set them by the fire-side till they are yellow; then wash and set them over a slow fire in alum and water, covered with vine leaves; let them boil till they

become green; take them off, and let them stand in the liquor till cold; then quarter them, and take out the seed and pulp; put them in cold spring water, changing it twice a day for three days. Have ready a syrup made thus: to one pound of loaf-sugar half an ounce of ginger, bruised, with as much water as will wet it; when it is quite free from scum, put in, when boiling, the rind of a lemon and juice; when quite cold, pour the syrup on the melons. If the syrup is too thin, after standing for two or three days, boil it again, and add a little more sugar. A spoonful of rum gives it the West-Indian flavor. Girkins may be done the same way. One ounce of alum, when pounded, is sufficient for a dozen melons of a middling size.

To preserve Strawberries Whole.

Take an equal weight of fruit and double refined sugar; lay the former in a large dish, and sprinkle half the sugar in fine powder; give a gentle shake to the dish, that the sugar may touch the under side of the fruit. Next day make a thin syrup with the remainder of the sugar, and allow one pint of red currant juice to every three pounds of strawberries; in this simmer them until sufficiently jellied. Choose the largest scarlets, not dead ripe.

To Preserve Apricots.

Infuse young apricots, before their stones become hard, into a pan of cold spring water, with plenty of vine leaves; set them over a slow fire until they are quite yellow; then take them out and rub them with a flannel and salt, to take off the lint; put them into the pan, to the same water and leaves, cover them close, at a distance from the fire, until they are a fine light green; then pick out all the bad ones. Boil the best gently two or three times, in a thin syrup, and let them be quite cold each time before you boil them. When they look plump and clear, make a syrup of double refined sugar, but not too thick; give your apricots a gentle boil in it, and then put them into the pots or glasses, dip a paper in brandy, lay it over them, tie them close, and keep them in a dry place.

To clear Barns, Houses, &c., of Rats and Mice.

Spread garlic or dog's tongue—Cynoglossum—(bruised), where they frequent.

To Renovate a Razor Strop.

1. Rub a little clean tallow over the surface, and then put on it the light top part of the snuff of a candle ; rub it smooth. Excellent.

2. Rub the strop well with a piece of soft pewter or lead.

Bread Poultice.

Take stale bread in crumbs, pour boiling water over it, and boil till soft, stirring it well ; then take it from the fire, and gradually stir in a little hog's lard or sweet oil, so as to render the poultice pliable when applied.

Corn Meal Poultice.

Indian meal, five table-spoonfuls ; rye flour, one table-spoonful. To be gradually let through the fingers into boiling water, briskly stirring at the same time. Then add a little oil, as for the bread poultice.

Apple Poultice.

Apples pared, cored, and well boiled, then well washed into a pulp, form a very good poultice.

Starch Poultice.

Starch, any quantity ; thicken with boiling water. When a little cool, stir in a little lard or oil.

Slippery Elm Poultice.

Take slippery elm in powder, and mix with water until somewhat thick, then boil a few minutes. It is to be applied warm.

Yeast Poultice.

Wheat flour, one pound ; yeast, half a pint. Mix them together over a gentle heat until the mixture begins to rise, then apply warm.

Mustard Poultice.

Flour of mustard, one part ; flaxseed meal, one part. Make into a paste with water. A little oil or lard should be added to prevent its sticking.

Poultice made of Hops.

Boil a handful of hops for a few minutes in a pint of water, in a covered vessel, squeeze out the juice and strain. This liquor is now to be put again on the fire and thickened with Indian meal, and a little lard added as it becomes cool.

Spice Poultice.

Cinnamon, allspice, cloves, and ginger, of each equal quantities; honey or molasses to mix.

Alum Poultice.

Put the white of a couple of eggs into a plate, and then with a piece of alum between the thumb and finger stir it into a curd. To be applied wrapped in a fine piece of linen, having but one fold next the skin.

Relief for Spavin.

Shave off the hair and apply a blister of Spanish flies to the part affected. Bathe with warm strong vinegar, and let the horse have rest.

Relief for String-Halt.

Bathe with warm vinegar and sweet oil and rub well the part affected.

Chest Founder (Momentary Relief for.)

Bleed freely, and give an ounce of aloes in a ball.

Cure for a Wen.

The following has proved to be effectual: Make a very strong brine, dip in a piece of flannel two or three times doubled, and apply it to the wen; keep it constantly wet night and day, until suppuration takes place.

Warts, &c.

The bark of the common willow burnt to ashes, mixed with strong vinegar, and applied to the parts, will remove all warts, corns, and other excrescences.

Corns.

Dissolve a little caustic potash in water, and wet the corn with it every night.

Or—Bathe the feet frequently in warm water with a little salt and potash dissolved in it, and apply a plaster

made of two ounces of gum ammonia, two ounces of yellow wax, and two drachms of verdigris. Rasp away with pumice-stone as much of the corn as possible, and apply the plaster spread on thin soft leather. It must be renewed once a fortnight till cured.

Cure for Quinsy.

Simmer hops in vinegar a few minutes, until their strength is extracted, strain the liquid, sweeten it with sugar, and give it frequently to the child or patient, in small quantities, until relieved. This is said to be an excellent medicine.

To Polish Varnish.

This is effected with pumice-stone and Tripoli earth, or "rotten-stone." The pumice-stone must be reduced to an impalpable powder, and put upon a piece of serge moistened with water; with this rub lightly and equally the varnished substance. The tripoli must also be reduced to a very fine powder, and put upon a clean woollen cloth, moistened with olive oil, with which the polishing is to be performed. The varnish is then to be wiped off with soft linen, and when quite dry, cleaned with starch or Spanish white, and rubbed with the palm of the hand.

To make Wash for Preserving Drawings made with a Black Lead Pencil.

A thin wash of isinglass will fix either black lead, or hard black chalk, so as to prevent their rubbing out; or the same effect may be produced by the simple application of skimmed milk, as have been proved by frequent trials. The best way of using the latter is to lay the drawing flat upon the surface of the milk; and then taking it up by one corner till it drains and dries. The milk must be perfectly free from cream, or it will grease the paper.

To Preserve Steel Goods.

A thin coating of caoutchouc, or indian rubber, is an excellent preservative of iron and steel articles from the action of the air and moisture. The caoutchouc is to be melted in a close vessel, that it may not inflame. It

will require nearly the temperature of fusing lead, and must be stirred to prevent burning.

To Polish Varnished Furniture.

Take two ounces of tripoli powdered, put it in an earthen pot, with water to cover it; then take a piece of white flannel, lay it over a piece of cork or rubber, and proceed to polish the varnish, always wetting it with the tripoli and water. It will be known when the process is finished by wiping a part of the work with a sponge, and observing whether there is a fair even gloss. When this is the case, take a bit of mutton suet and fine flour, and clean the work.

To Polish Wood.

Take a piece of pumice-stone, and water, and pass regularly over the work until the rising of the grain is cut down; then take powdered tripoli and boiled linseed oil, and polish the work to a bright surface.

To make Blacking.

Take of ivory black and treacle; each 12 oz., spermaceti oil, 4 oz., white wine vinegar, four pints. Mix. This blacking, is superior in giving leather a finer polish than any of those that are advertised, as they all contain sulphuric acid, (oil of vitriol), which is necessary to give it the polishing quality, but it renders leather rotten and very liable to crack.

To make Varnish for Colored Drawings.

Take of Canada balsam, one ounce, spirit of turpentine, two ounces. Mix them together. Before this composition is applied, the drawing or print should be sized with a solution of isinglass in water; and when dry, apply the varnish with a camel's-hair brush.

Roman Cement.

A sort of plaster, so called, is made by mixing 1 bushel of lime slaked, with 3 pounds and a half of green copperas, 15 gallons of water, and half a bushel of fine gravel sand. The copperas should be dissolved in hot water; it must be stirred with a stick, and kept stirring continually while in use. Care should be taken to mix

at once as much as may be requisite for one entire front, as it is very difficult to match the color again; and it ought to be mixed the same day it is used.

To make Furniture Paste.

Scrape four ounces of beeswax into a basin, and add as much oil of turpentine as will moisten it through. Now powder a quarter of an ounce of resin, and add as much Indian red as will bring it to a deep mahogany color. When the composition is properly stirred up, it will prove an excellent cement or paste for blemishes in mahogany, and other furniture.

To Clean White Veils.

Put the veil in a solution of white soap, and let it simmer a quarter of an hour. Squeeze it in some warm water and soap, till quite clean. Rinse it from soap, and then in clean cold water, in which is a drop of liquid blue. Then pour boiling water upon a tea-spoonful of starch, run the veil through this, and clear it well, by clapping it. Afterwards pin it out, keeping the edges straight and even.

Excellent China Ink.

Finest lamp-black, 75 parts; thick mucilage, 15 parts; strong ink, pale new, 50 parts; ox gall, 12 parts. Grind them well together, and if too soft evaporate a little of the water by a gentle heat; if too thick, add ink.

To Clean White Satin and Flowered Silks.

Mix sifted stale bread crumbs with powder-blue, and rub it thoroughly all over, then shake it well, and dust it with clean soft cloths. Afterwards, where there are any gold or silver flowers, take a piece of crimson ingrain velvet, rub the flowers with it, which will restore them to their original lustre.

Another Method.

Strew French chalk over them, and brush it off with a hard brush once or twice.

To Clean Black Silks.

To bullock's gall, add boiling water sufficient to make it warm, and with a clean sponge rub the silk well on

both sides, squeeze it well out, and proceed again in like manner. Rinse it in spring water, and change the water till perfectly clean ; dry it in the air, and pin it out on a table ; but first dip the sponge in glue-water, and rub it on the wrong side ; then dry it before a fire.

To Dip Rusty Black Silks.

If it requires to be red dyed, boil logwood ; and in half an hour put in the silk, and let it simmer half an hour. Take it out, and dissolve a little blue vitriol and green copperas ; cool the copper, let it simmer half an hour, then dry it over a stick in the air. If not red-dyed, pin it out, and rinse it in spring water, in which half a tea-spoonful of oil of vitriol has been put. Work it about five minutes, rinse it in cold water, and finish it by pinning and rubbing it with gum water.

To make Artificial Red Coral Branches, for the Embellishment of Grottoes.

Take clear resin, dissolve it in a brass pan, to every ounce of which add 2 drachms of the finest vermilion ; when stirred well together, choose the twigs and branches, peeled and dried, then take a pencil and paint the branches all over whilst the composition is warm ; afterwards shape them in imitation of natural coral. This done, hold the branches over a gentle coal fire, till all is smooth and even as if polished. In the same manner white coral may be prepared with white lead, and black coral with lamb-black. A grotto may be built with little expense, of glass, cinders, pebbles, pieces of large flint, shells, moss, stones, counterfeit coral, pieces of chalk, &c., all bound or cemented together with the above described cement.

To Cultivate Bee Flowers.

Bees are most fond of those places where their favorite flowers are to be found ; therefore bee-keepers should encourage the growth of such shrubs and flowers as are known to supply honey and wax in the greatest abundance ; in most situations bees do not fly far for food, generally not more than half a mile ; they may be observed to return with great precipitation to the hive,

when rain or a storm approaches. The following are the most favorable for pasturage, and those which blossom early are the most desirable :

Shrubs, &c.

Sallow, or the grey willow,
Rosemary,
Barberry-tree,
Gooseberry,
Raspberry,
Apricot and all other fruit-trees,
Lime-trees,
Furze,
Broom,
Heath,

Flowers.

Mignonette,
Lemon thyme,
Garden and wild thyme,
Borage,
Winter savory,
Hyssop,
Mustard,
Turnips,
Cabbage,
White-clover, } when left for seed.
Scarlet and other beans when in bloom.

Mignonette, borage, and lemon thyme are the principal, as they continue very long in bloom, and afford the finest honey. Rivers or streams of water are also very beneficial, as bees make use of a great deal of water.

To Choose a Carpet.

Always select one the figures of which are small; for in this case the two webs in which the carpeting consists, are always much closer interwoven than in carpets where large figures upon ample grounds are represented.

A certain Cure for the Piles.

Take a scruple of powdered opium, 2 scruples flour of sulphur, and 1 ounce of simple cerate. Keep the affected parts well anointed. Be prudent in your diet.

To Preserve Houses from Vermin.

Bugs, in particular, may readily be destroyed by dissolving half a drachm of corrosive sublimate, in a quarter of an ounce of spirit of salts, mixing it with one quart of spirits of turpentine. Shake these well together, dip a brush in it, and wash those places where bugs are supposed to resort; this will remove them to a greater certainty than any other mode now practised.

To make Cologne Water.

Take of essence de bergamotte, 3 ounces; Neroli, 1 and a half drachms; cedrat, 2 drachms; lemon, 3 drachms; oil of rosemary, 1 drachm; spirits of wine, 12 pounds; spirit of rosemary, 3 and a half pounds; eau de melisse de Carmes, 2 and a quarter pounds. Mix. Distil in *balneum mariæ*, and keep it in a cold cellar or ice-house for some time.

To Remove Freckles.

1. Alysson seeds, 1 part; honey, 2 parts. Make into a pomade.

2. Bichloride of mercury, 2 parts; hydrochloric acid, 1 part; spirits of wine, 3 parts; milk of almonds, 25 parts; rose-water, 45 parts. Mix, and apply night and morning.

To procure Green Peas in Winter.

Take the peas when they are plenty, shell them, wash and scald in hot water, then drain, put them into bottles, and pour strong brine on them until they are perfectly covered; over this pour a thin layer of good salad oil, and cork tight, then dip the corks into melted pitch. The bottles should be quite full, and kept upright.

To keep Moths from Clothing.

Put a few cuttings of Russia leather in your trunk or wardrobe; or sprinkle a few pepper-corns, pimento corns, or cloves, in the same places.

Mock Turtle Soup.

Take a fine calf's head, cut the meat clean from the bones, then boil the bones in water; season with cayenne, nutmeg, and mace; pour into the gravy a pint of Madeira wine, with a little parsley and thyme.

Compound Pitch Plaster.

Burgundy pitch, 6 parts; yellow resin, 8 parts; yellow wax, 3 parts; lard, 7 parts; turpentine, 1 part; palm oil, 1 part; linseed oil, 1 part. Mix.

Elastic Cement for Bells.

Dissolve in good brandy a sufficient quantity of isinglass, so as to be as thick as molasses.

Horse-radish.

It is easy to have a supply of horse-radish all winter. Have a quantity grated while the root is in perfection; put it in bottles, fill it with vinegar, and keep it corked tight.

Never Kill a Bee.

The smoke of the "fungus maxims," or common puff ball, when dried so as to hold fire, has a stupifying effect on the bees, and renders them as harmless as brimstone does, without any of its deadly effects. By means of this, weak swarms, which would not live through the winter, may be united to strong stocks.

To expel Rats from Houses.

Smear their holes and haunts with a mixture of two parts of tar to one of lamp oil, gently boiled together. They will not approach it.

To revive Gilt Frames.

Beat up the white of eggs with chloride of potasse or soda, in the proportion of three ounces of egg to one ounce of chloride. Blow off the dust from the frames, then do them over with a soft brush dipped in this mixture, and they will immediately become bright and fresh.

German method to Prepare Quills.

Suspend the quills in a copper over water, sufficiently high to touch the nibs; then elose it steam-tight, and apply four hours' hard boiling; next withdraw and dry them, and in twenty-four hours cut the nibs and draw out the pith; lastly, rub them with a piece of cloth and expose them to a moderate heat. The quills prepared in this way are as hard as bone, without being brittle, and as transparent as glass.

Glazier's Putty.

Whiting, 70 pounds; boiled oil, 30 pounds; water, 2 gallons. Mix. If too thin, add more whiting; if too thick, add more oil.

To make Red Ink for Ruling.

One pound of Brazil wood to one gallon of the best vinegar; let the vinegar simmer before you add the

wood, then let them simmer together for half an hour ; then add three-quarters of a pound of alum, to set the color ; strain it through a woollen or cotton cloth ; cork it tight in a stone or glass bottle. For ruling, add half a gill of fresh gall to one quart of red ink, then cork it up in a bottle for use.

Substitutes for Tea.

1. Clean chopped meadow hay is said to make a very good substitute for tea, if used in the proportions of three to one.

2. Dried rose-buds, 5 parts ; rosemary leaves, 1 part ; balm, 2 parts. Mix.

3. Strawberry and black current leaves make a very good substitute for tea, when properly treated,

4. The herb spring-grass, (*anthoxanthum odoratum*,) when dried, forms an excellent substitute for China tea, and is more wholesome.

To prevent Mould in Ink.

Add a few cloves to the ink.

Ginger Beer.

Bruised ginger, 2 ounces ; water, 5 gallons. Boil for one hour, then add, when sufficiently cool, lump-sugar, 3 1-2 pounds ; cream of tartar, 1 1-2 ounce ; essence of lemon, 1 drachm ; yeast, half pint. Strain, bottle, and wire down the corks.

2. Loaf-sugar, 1 pound ; rasped ginger, 1 ounce ; cream of tartar, three-quarters of an ounce ; boiling water, 1 gallon. Mix, and cover them up close for one hour, then add essence of lemon, 15 drops ; yeast, 2 or 3 spoonsful. Strain, bottle, and wire down the corks.

The Art of Fire Eating, &c.

The power of resisting the action of fire is given to the skin by frequently washing it with diluted sulphuric acid, until the part becomes sufficiently callous. It is said that the following mixture is very efficacious : Dilute sulphuric acid, 3 parts ; sal ammoniac, 1 part ; juice of onions, 2 parts. Mix. It is the acid, however, that produces the effect.

To Restore and Improve Musty Flour.

Carbonate of magnesia, 3 parts ; flour, 760 parts. Mix, and use the flour in the usual way. This will not only greatly improve bad flour, but the bread will be much lighter, more wholesome, and keep longer than when alum is used.

To Stain Wood like Ebony.

Take a solution of sulphate of iron, and wash the wood over with it two or three times ; let it dry, and apply two or three coats of a strong decoction of log-wood ; wipe the wood when dry with a sponge and water, and polish with oil.

To make a Cheap Fuel.

Mix coal, charcoal, or saw-dust, one part ; sand of any kind, two parts ; marl or clay, one part, in quantity as thought proper. Make the mass up wet, into balls of a convenient size ; and when the fire is sufficiently strong, place these balls according to its size, a little above the top of the bar ; and they will produce a heat considerably more intense than common fuel ; and ensure a saving of one half the quantity of coals. A fire then made up will require no stirring, and will need no fresh fuel for ten hours.

To Cultivate Mustard.

A yard square of ground, sown with common mustard, the crop of which ground for use in a little mustard-mill, as wanted, would save some money, and probably save life. The mustard would look brown instead of yellow ; but the former color is as good as the latter ; and, as to the taste, the real mustard has certainly a much better taste than that of the drugs and flour, which go under the name of mustard. Let any one try it, and he will never use the drugs again. The drugs, if taken freely, leave a burning at the pit of the stomach, which the real mustard does not.

To Preserve Fruit Trees in Blossom from Frost.

Surround the trunk of the tree in blossom with a wisp of straw or hemp. The end of this sink by means of a stone tied to it, in a vessel of spring water, at a little

distance from the tree. One vessel will conveniently serve two trees. Or the cord may be lengthened so as to surround several before its end is plunged into the water. It is necessary that the vessel should be placed in an open situation out of the reach of any shade, so that the frost may produce all its effects on the water by means of the cord communicating with it.

Chinese Mode of Propagating Fruit Trees.

Strip a ring of bark, about an inch in width, from a bearing branch, surround the place with a ball of fat earth, or loam, bound fast to the branch with a piece of matting; over this they suspend a pot or horn, with water, having a small hole in the bottom just sufficient to let the water drop, in order to keep the earth constantly moist. The branch throws new roots into the earth just above the place where the ring of bark was stripped off. The operation is performed in the spring, and the branch is sawn off and put into the ground at the fall of the leaf. The following year it will bear fruit.

To Heal Wounds in Trees.

This method consists in making a varnish of common linseed oil, rendered very drying, by boiling it for the space of an hour, with an ounce of litharge to each pound of oil, mixed with calcined bones, pulverized and sifted, to the consistence of an almost liquid paste. With this paste the wounds are to be covered, by means of a brush, after the bark and other substance have been pared, so as to render the whole as smooth and even as possible. The varnish must be applied in dry weather.

Autographic Ink for Lithographers.

White soap, 25 parts; white wax, 25 parts; mutton suet, 6 parts; lampblack, 6 parts; shell-lac, 10 parts; mastic 10 parts. Mix with heat, and proceed as for lithographic ink.

To Kill Roaches.

Wafers, made out of red-lead and wheat flour.

Rice Coffee

Take good rice, roast and grind it, the same as coffee.

To Preserve Plants from Frost.

Before the Plant has been exposed to the sun, or thawed, after a night's frost, sprinkle it well with spring water, in which sal-ammoniac or common salt has been infused.

To Make Parchment.

This article is manufactured from sheep skins, cleared from lime. The skin is stretched on a frame where the flesh is pared off with an iron circular knife; it is then moistened with a rag, and whiting spread over it; the workman then with a large pumice stone, flat at the bottom, rubs over the skin, and scours off the flesh. He next goes over it with the iron instrument as before, and rubs it carefully with the pumice stone without chalk; this serves to smooth the flesh side. He drains it again by passing over it the iron instrument as before; he passes it over the wool side, then stretches it tight on a frame. He now throws more whiting, and sweeps it over with a piece of wooly lamb-skin. It is now dried, and taken off the frame by cutting it all round. Thus prepared, it is taken out of the skinner's hands by the parchment maker, who, while it is dry, pares it on a summer, (which is a calf-skin stretched in a frame), with a sharper instrument than that used by the skinner, who, working it with the arm from the top to the bottom of the skin, takes away about half its substance. It is again rendered smooth by the pumice stone, which leaves the parchment finished.

To Make Vellum.

This is a species of parchment made of the skins of abortives, or sucking calves: it has a much finer grain, and is white and smoother than parchment, but is prepared in the same manner, except in its not being passed through the lime-pit. The article is used for binding superior books, and covering of drum heads.

To Preserve Leather from Mould.

Pyroligneous acid may be used with success in preserving leather from the attacks of mouldiness, and is serviceable in recovering it after it has received that species of damage, by passing it over the surface of the hide or skin, first taking due care to expunge the mouldy spots by the application of a dry cloth. This remedy will prove of equal service if applied to boots, shoes, &c., when damaged in the same manner.

To Destroy Maggots in Sheep.

Mix with one quart of spring water, a table spoonful of the spirit of turpentine, and as much of the sublimate powder as will lie upon a quarter of a dollar. Shake them well together, and cork it up in a bottle, with a quill through the cork, so that the liquid may come out of the bottle in small quantities at once. The bottle must always be well shaken when it is to be used. When the spot is observed where the maggots are, do not disturb them, but pour a little of the mixture upon the spot, as much as will wet the wool and the maggots. In a few minutes after the liquor is applied the maggots will all creep to the top of the wool, and in a short time

drop off dead. The sheep must, however, be inspected next day, and if any of the maggots remain undestroyed, shake them off, or touch them with a little more of the mixture.

A little train oil may be applied after the maggots are removed, as sometimes the skin will be hard, by applying too much of the liquid. Besides, the fly is not so apt to strike when it finds the smell of the oil, which may prevent a second attack.

This method of destroying maggots is superior to any other, and it prevents the animal from being disfigured by clipping off the wool, which is a common practice in some countries.

Dr. Boerhaave's Rules.

This great man left, as a legacy to the world, the following simple and unerring directions for preserving health; they contained the sum and substance of his vast professional knowledge, during a long and useful life: "KEEP THE FEET WARM; THE HEAD COOL; AND THE BODY OPEN." If these were generally attended to, the physician's aid would seldom be required.

To extricate Persons from Broken Ice.

Let two or more persons hold a rope or ropes at both ends, stretched over the broken ice, so that the drowning person may catch hold of it.

Assistance to a Person in danger of Drowning.

If the spectator is unable to swim, and can make the sufferer hear, he ought to direct him to keep his hands and arms under water until assistance comes: in the meantime throw towards him a rope, a pole, or any thing that may help to bring him ashore, or on board. He will eagerly seize whatever is placed within his reach: thus he may perhaps be rescued from his perilous situation.

The best manner in which an expert swimmer can lay hold of a person he wishes to save from sinking, is to grasp *his arm* firmly between the shoulder and the elbow: this will prevent him from clasping the swimmer in his arms, and thus forcing him under water, and perhaps causing him to sink with him.

To stain Paper or Parchment Yellow.

Paper may be stained a beautiful yellow by the tincture of turmeric, formed by infusing an ounce or more of the root, powdered, in a pint of spirits of wine. This may be made to give any tint of yellow, from the lightest straw to the full color, called French yellow, and will be equal in brightness even to the best dyed silks. If yellow be wanted of a warmer or redder cast, annatto, or dragon's blood must be added. The best manner of using these, and the following tinctures, is to spread them even on the paper or parchment, by means of a broad brush in the manner of varnishing.

Crimson.

A very fine crimson stain may be given to paper, by a tincture of the Indian lake, which may be made by infusing the lake some days in spirits of wine, and then pouring off the tincture from the

dregs. It may be stained red by red ink. It may also be stained of a scarlet hue by the tincture of dragon's blood in spirits of wine but this will not be bright.

Green.

Paper or parchment may be stained green, by the solution of verdigris in vinegar, or by the crystals of verdigris dissolved in water.

Orange.

Stain the paper or parchment first of a full yellow, by means of the tincture of turmeric; then brush it over with a solution of fixed alkaline salt, made by dissolving half an ounce of pearlashes, or salt of tartar, in a quart of water, and filtering the solution.

Purple.

Paper or parchment may be stained purple by archil, or by the tincture of logwood. The juice of ripe privet berries expressed, will likewise give a purple dye.

To Marble the Edges of Books or Paper.

Dissolve four ounces of gum arabic in two quarts of clear water; then provide several colors mixed with water, in pots or shells, and with pencils peculiar to each color sprinkle them, by way of intermixture, upon the gum-water, which must be put into a trough, or some broad vessel; then with a stick curl them or draw them out in streaks, to as much variety as required. Having done this, hold the book or books close together, and only dip the edges in, on the top of the water and colors, very lightly; which done, take them off, and the plain impression of the colors in mixture will be upon the leaves; doing as well the end as the front of the books in the same manner.

To Marble the Covers of Books.

This is performed by forming clouds with aquafortis, or spirit of vitriol, mixed with ink, and afterwards glazing the covers.

To Restore Flowers.

Most flowers begin to droop and fade after being kept during twenty-four hours in water; a few may be revived by substituting fresh water; but all (the most fugacious, such as poppy, and perhaps one or two others excepted,) may be restored by the use of hot water. For this purpose place the flowers in scalding water, deep enough to cover about one-third of the length of the stem: by the time the water has become cold, the flowers will have become erect and fresh; then cut off the coddled ends of the stems and put them into cold water.

Feeding Horses on the Road.

Many persons, in travelling, feed their horses too much and too often—continually stuffing them, not allowing them time to rest and digest their food; of course they suffer from over fulness and carrying unnecessary weight. Some make it a rule to bait every ten miles, which is very inconsistent, as in some cases with a fleet ani

mal, good road, favorable weather and load, this distance may be travelled in one-third the time it can under unfavorable circumstances, as to speed. It would be better to regulate the feeding by time, rather than distance.

Horses should be well fed in the evening, and not stuffed too full in the morning, and the traveller should be moderate on starting with a horse having a full stomach. If a horse starts in good condition, and travels rather quick, he can go twenty-five miles without baiting; this is evident, when we consider the time necessary to accomplish this space with tolerable speed.

If a horse starts, well fed, in the morning at 7 o'clock, he can travel till noon, having a little water and a little rest occasionally, without food; or if he have any, a little meal in water, or two quarts of oats; if ground, the better: or a little lock of hay may be given instead of meal or oats. At noon the horse should be pretty well fed, and rest two hours; then he can travel four or five hours with very little or no food.

Vermin on Fowls.

Scattering slaked lime on the perches and floors of the hen-houses as often as once in ten days, will effectually eradicate lice, and promote the health of the fowls.

Colic in Horses.

Horses attacked with this fearful disease, are speedily and effectually relieved by the following simple remedy. Dissolve, in a quart of pure water, as much salt as will thoroughly saturate the liquid, and drench the animal thoroughly, until you discover symptoms of relief. The same is good for the bots.

An easy method of Breaking Glass to any required Figure.

Make a small notch, by means of a file, on the edge of a piece of glass; then make the end of a tobacco-pipe, or of a rod iron of the same size, red hot in the fire; apply the hot iron to the notch, and draw it slowly along the surface of the glass, in any direction you please: a crack will be made in the glass, and will follow the direction of the iron. Round glass bottles or flasks may be cut in the middle, by wrapping round them a worsted thread, dipped in spirits of turpentine, and setting it on fire when fastened on the glass.

A Water-proof Varnish for Prints and Pictures.

Dilute one quarter of a pound of Venice turpentine with a gill, or thereabouts, of spirits of wine. If too thick, add a little more of this last; if not enough, a little of the former, so that it has no more thickness than milk. Lay one coat on the right side of the print, and when dry it will shine like glass. If it be not to your liking, lay on another.

A Black Varnish for Straw or Chip Hats.

Half an ounce of the best black sealing-wax; two ounces of rectified spirits of wine. Powder the wax, put it with the spirits into a four ounce vial; digest them in a small heat near the fire, till the wax is dissolved; lay it on warm, with a fine soft hair brush, before a

fire or the sun. It gives stiffness to old straw hats, and a beautiful gloss, and resists wet.

Portable Ice-House.

Two casks, one six or seven inches longer and wider than the other. Into the largest put charcoal powder, about three or four inches deep; then place the smaller cask on this, and fill up the vacancy between the two with charcoal powder, and drive it down tight; arrange a double cover, and fill it in the same way then bore a hole one inch in diameter through the bottoms of the two casks, and insert a wooden pipe to let the water run out; lastly, put it in the coldest place possible.

The celebrated Brilliant French Varnish for Boots and Shoes

Take three-quarters of a pint spirits of wine; 5 pints white wine; half pound gum senegal in powder; 6 ounces loaf sugar; 2 ounces powdered galls; 4 ounces green copperas. Dissolve the sugar and gum in the wine. When dissolved, strain; then put it on a slow fire, being careful not to let it boil. In this state put in the galls, copperas, and the alcohol, stirring it well for five minutes. Then set off, and when nearly cool strain through flannel and bottle for use. It is applied with a pencil brush.

To Preserve Woodwork.

Take boiled oil and finely-powdered charcoal, mix to the consistence of a paint, and give the wood two or three coats with this composition. Well adapted for water spouts, casks, &c.

Portable Lemonade.

1. Tartaric acid, 1 ounce; white sugar, 5 pounds; essence of lemon 1-4 ounce. Powder, and keep dry for use. A desert-spoon full will make a tumbler of lemonade.

2. Tartaric acid, one part; powdered white sugar, 90 parts; essence of lemon to flavor. Mix, and keep it in a bottle; for use, put one full tea-spoonful into a glass of water, and stir it until dissolved.

Pew's Composition for covering Buildings.

Take the hardest and purest limestone (white marble is to be preferred,) free from sand, clay, or other matter; calcine it in a reverberatory furnace, pulverize and pass it through a sieve. One part, by weight, is to be mixed with two parts of clay well baked and similarly pulverized, conducting the whole operation with great care. This forms the first powder. The second is to be made of one part of calcined and pulverized gypsum, to which is added two parts of clay, baked and pulverized. These two powders are to be combined, and intimately incorporated, so as to form a perfect mixture. When it is to be used, mix it with about a fourth part of its weight of water, added gradually, stirring the mass well the whole time, until it forms a thick paste, in which state it is to be spread like mortar upon the desired surface. It becomes in time as hard as stone, allows no moisture to penetrate, and is not cracked by heat. When well prepared it will last any

length of time. When in its plastic or soft state, it may be colored to any desired tint.

Rules for Judging when the Eyes require the assistance of Spectacles.

1. When we are obliged to remove small objects to a considerable distance from the eye in order to see them distinctly.

2. If we find it necessary to get more light than formerly, as, for instance, to place the candle between the eye and the object.

3. If, on looking at, and attentively considering a near object, it fatigues the eye and becomes confused, or if it appears to have a kind of dimness or mist before it.

4. When small printed letters are seen to run into each other, and hence, by looking steadfastly on them, appear double or treble.

5. If the eyes are so fatigued by a little exercise, that we are obliged to shut them from time to time, so as to relieve them by looking at different objects.

When all these circumstances concur, or any of them separately takes place, it will be necessary to seek assistance from glasses, which will ease the eyes, and in some degree check their tendency to become worse; whereas, if they be not assisted in time, the weakness will be considerably increased, and the eyes be impaired by the efforts they are compelled to exert.

THE END

THE
FRUGAL HOUSEKEEPER'S
KITCHEN COMPANION,
OR
GUIDE TO ECONOMICAL COOKERY.

CONTAINING

Instructions in the Art of Cooking every kind
of Meats and Vegetables, and in making
plain and fancy Cakes, Puddings, Pas-
try, Confectionary, Ice Creams, Jel-
lies, and other delicacies.

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DEDICATED TO THOSE

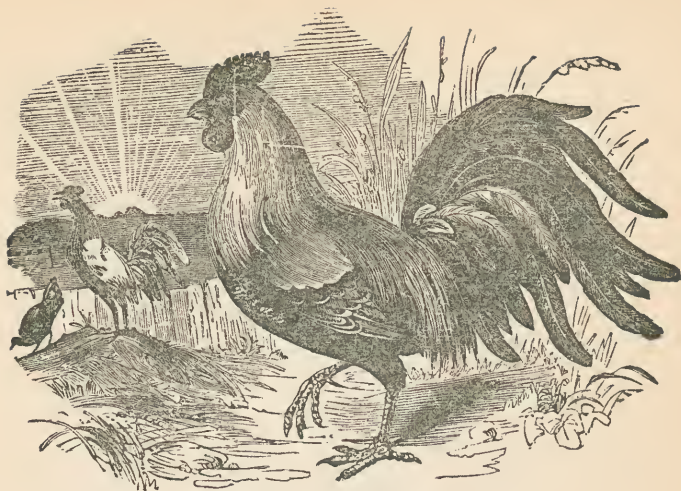
**AMERICAN HOUSEWIVES**  
WHO ARE NOT ASHAMED OF ECONOMY.

~~~~~  
"A FAT KITCHEN MAKETH A LEAN WILL."

Franklin

—
BY MRS. ELIZA ANN WHEELER.
—

NEW YORK:
E. C. BRIDGMAN,
5 BARCLAY STREET.



TO THE PURCHASER

IT is not beneath the dignity of any lady, however refined, to make herself acquainted with all the necessary arrangements of a household, and if she would (as the "presiding angel"), make her home, "*sweet home*," she will feel a pleasure in pursuing

Economy, Industry, and Taste,

which together, constitute all that is necessary to be consulted both in providing for our households, and in the enjoyment of those things which are needful for our sustenance.

ECONOMY IS IMPORTANT, because it teaches us to "gather up the fragments that nothing be lost."

INDUSTRY RIGHTLY APPLIED, will be sure to replenish our pockets that nothing be wanting. And

TASTE PROPERLY GRATIFIED, will greatly contribute to our pleasure in partaking of the good things which our Creator has so bountifully bestowed upon us.

In preparing the following pages, the author has had a strict regard to **FRUGALITY AND DOMESTIC COMFORT**, and feels assured that the prudent housewife, in consulting this little book, will be **REWARDED A HUNDRED-FOLD** for the **TRIFLING COST** of its purchase.

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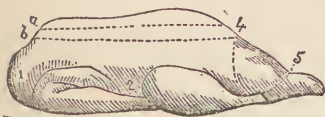
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No. 1. *Turkey.*

Place your fork firmly in the middle of the breast; take the wing, divide the joint—by turning it back it will break easily. Perform a

similar operation on the other side; next remove the neck bones, by cutting through the whole of the ribs close to the breast; turn up the back, press the point of the knife about the middle of the turkey, raise the lower end and it will separate at once. The legs are to be cut in the same manner as the wings. The best pieces are the breast and wings—give a portion of the stuffing with each plate.

No. 2. *Goose.*

A goose is carved nearly the same as a turkey, only more prime pieces can be obtained by carving from pinion to pinion.

The breast, legs, and wings, are the best pieces. Help with stuffing and gravy.

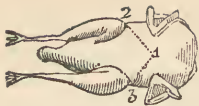
No. 3. *Roast Pig.*

As this is usually divided before being sent to the table, it only remains for the carver to separate the shoulder from the body, and then the leg, and divide the ribs—help with stuffing and gravy.

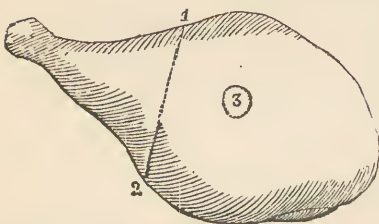
No. 4. *Fore Quarter of Lamb.*

First, divide the shoulder from the breast and ribs by pressing the knife under the knuckle, in the direction of 1, 2 and 3, so as to leave a portion of meat on

the ribs. Sprinkle with salt and pepper, and divide in the line 3 and 4. Serve with gravy and stuffing.

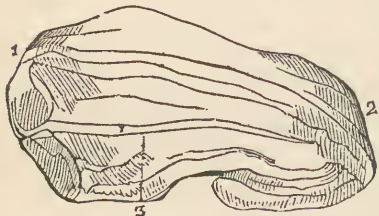
No. 5. *Pigeons.*

The usual way is to insert the knife at 1 and cut to 2 and 3, when each portion may be divided; or the bird may be cut into halves, either across or down the middle—the first mode is the best.

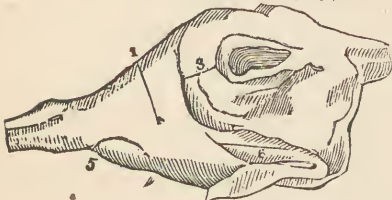
No. 6. *Hams.*

Can be cut 3 ways. 1st cut thin slices from 1 to 2, laying open the bone at each cut, which procures the best pieces at once. 2d, take out a round piece at No. 3, and cut them in circular

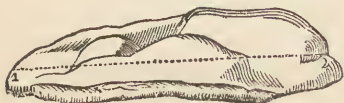
slices. 3d and most economical, commence at the knuckle.

No. 7. *Sirloin of Beef.*

There are two modes of carving this joint. The latter way is to carve long thin slices from 1 to 2. The other way is by cutting across, which, however, spoils it. The best part lies in the direction of line 3. Give a portion of fat with each slice.

No. 8. *Leg of Mutton.*

The best is in the centre at 1; commence there and cut slices each way. There are good pieces on the broad end of the back of the leg, which cut lengthways.

No. 9. *A Breast of Veal.*

with gravy

Is composed of the ribs and brisket, which must be cut through the line 1, 2; divide each portion into convenient pieces, and help

INTRODUCTION.

MEATS.

SOME FACTS IMPORTANT TO BE KNOWN AND OBSERVED.

In warm weather meat should be carefully looked to, as soon as it arrives, and if the flies have touched it, that part must be cut off and well washed. The best way to keep what is not intended to be salted, is to wipe it every day, and put some pieces of charcoal over it. The long pipe that runs by the bone in loins of meat, as also the kernels, should be taken out, as they are apt to taint. Edgebones and rumps of beef are often bruised by the drivers striking the beasts, which causes them to turn in a very short time; in purchasing those joints, always look to that.

Meat, as well as vegetables, that the frost has touched, must be well soaked in cold water before using it. Should that be omitted, it is impossible for any heat to dress them properly.

A great part of the suet may be taken from loins of mutton, or veal, or sirloin of beef, and cut up for puddings, or clarified for future use; the fat of a loin or neck of mutton, makes puddings much lighter than suet.

As for the length of time required for dressing meat, the size of the joint, the strength of the fire, and the nearness of the meat to it must direct. As a general rule, all solid joints require a quarter of an hour for every pound, and from ten to twenty minutes over, according as it may be preferred. Old meat can be eaten with the gravy more in, it therefore requires less time than young.

All meat should be well washed before it is dressed, if for

roasting, it must be thoroughly dried before putting down to the fire, which should be very clear and proportioned to the size of the joint.

A large thick piece of meat should not be put too close to the fire at first, or the outside will be scorched; as soon as it is warm thus, bring it gradually nearer the fire, baste it well, and when it is nearly done, flour it, that it may look frothy.

Salting meat, before it is put to roast, draws out the gravy; but it is a very good way to put some salt and water into the dripping pan, and baste for a little while with that, before using its own dripping, and only when almost done sprinkle the meat with salt—the dripping should be preserved, and will do for the basting as well as butter, excepting for poultry and game; and for plain pies nothing else should be used.

When the weather permits, meat eats much better for being hung two or three days before it is salted; in the height of summer it is better to lay it in cold water for an hour, well rubbing any part likely to be fly-blown; then wipe it quite dry, rub it thoroughly with salt, put some over it, and if it be very much corned, wrap it in a well-floured cloth, or turn and rub it every day, and it will be ready for cooking in three or four days.

In boiling fresh meat, the color will be better for soaking it, and boiling in a well floured cloth. It must be put into cold water and well skimmed the moment it boils, or the foulness will be dispersed over the meat.

If suffered to boil too quick the meat will be hard, but if the boiling stops the meat will be underdone. No vegetables should be dressed with the meat, except parsnips or carrots with beef.

The fire for boiling should be very clear, and the bars of the gridiron rubbed with suit, to prevent the meat adhering to it. It must be turned often, to keep in the gravy, and seasoned just before taking up. If you would have fried meat look very well, do them twice with egg and crumbs, then lay them in the pan with plenty of dripping or lard, and keep it boiling all the time.

To keep Meat hot. Should it be done earlier than wanted, take it up—set the dish over a pan of boiling water—put a deep cover over it, so as not to touch the meat, and throw a cloth over that; this way will not dry up the gravy

Important directions pertaining to the choice of Meats.

BEEF.

A good red color—tender to the touch, with a fine smooth open grain demonstrates it to be young. The meat is seldom good when the fat is of a deep yellow color, rather than white. The white is always to be preferred, and good solid beef to that which is oily and flabby. *Cow Beef* has whiter fat, lean duller red, and closer grain. *Bull Beef*, grain still closer, fat hard and skinny, lean deeper red, and a stronger scent. *Heifer Beet*, finely red, and is excellent—but *Ox Beef* is considered the best.

PORK.

A tough thick rind shows that it is old. Hence look for a thin rind. If it be smooth and cool it is indicative of its being fresh—but if tainted, it will be clammy.

Christians, or those who wish to preserve their health, should never eat pork fattened from the still-house—it is poisonous. Potatoes will do very well for part of the feeding, but pork that is fed from the dairy, and fattened on corn is good and solid, and therefore the best.

MUTTON.

A fine grain, good color, and white fat are the marks by which good mutton is designated. It is very nutritious, and often agrees with weak stomachs better than any other meat. From August until January mutton is best. To have it tender and good it must be kept as long as possible without injury, and then be sure and have it cooked until it is done.

LAMB.

Lamb also should be thoroughly cooked in order to be healthful—it will improve it when the weather will permit to keep it in a cool place a few days, and then naturally as it is delicate and tender it is delicious. If it has a green or yellow cast it is stale.

VEAL.

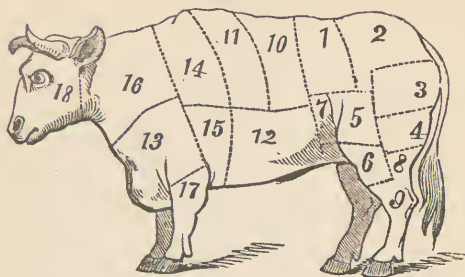
Though a delicious meat, is not considered very easy of digestion unless it be done very tender. Broiling it renders it still more difficult to digest. In buying veal always choose the whitest because it is the most juicy.

BACON

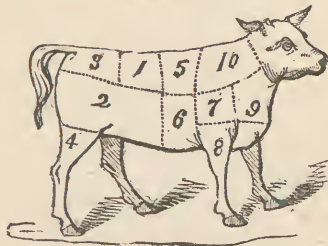
The young of course preferable. It may be known by a thin rind, firm fat, a red tinge, the lean of a good color, and adhering to the bone.

HAMS.

Stick a sharp knife under the bone—if it comes out clean, with a pleasant smell, it is good; but if the knife is daubed and has a bad scent, leave it. It is not good.

BEEF.

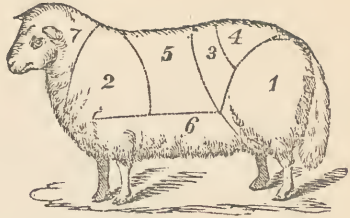
- | | | |
|-----------------|--------------------|--------------------|
| 1 Sirloin. | 8 Moose buttock | 13 Clod piece. |
| 2 Rump. | or thick leg | 14 Chuck rib. |
| 3 Round. | piece. | 15 Shoulder or leg |
| 4 Buttock. | 9 Leg. | of mutton piece. |
| 5 Veiney piece. | 10 Fore rib piece. | 16 Neck or stick- |
| 6 Thick flank. | 11 Middle rib | ing piece. |
| 7 Thin flank. | piece. | 17 Shin. |
| | 12 Brisket. | 18 Cheek. |

VEAL.

- | | |
|-------------------------|-------------------------|
| 1 Sirloin, best piece. | 6 Fore rib piece. |
| 2 Fillet, 2nd do. | 7 Shoulder blade piece. |
| 3 Loin, or chump end. | 8 Fore knuckle. |
| 4 Leg, or hind knuckle. | 9 Breast piece. |
| 5 Neck back piece. | 10 Neck, or scrag end |

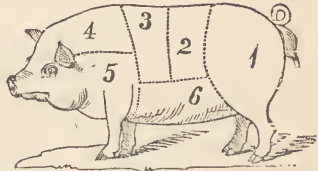
MUTTON.

- 1 Leg.
- 2 Shoulder.
- 3 Loin.
- 4 Loin chump end.
- 5 Loin, best end.
- 6 Breast.
- 7 Neck, or scrag end.



PORK.

- 1 Leg.
- 2 Hind loin.
- 3 Fore loin.
- 4 Spare rib.
- 5 Hand piece.
- 6 Belly, or spring piece.



VENISON.



- | | |
|------------------------|-------------------|
| 1 Haunch. | 3 Loin, best end. |
| 2 Neck. | 4 Shoulder piece. |
| 5 Rib, or belly piece. | |

PRACTICAL COOKERY.

1. *Roast Beef.*

The best piece for roasting is the sirloin. See engraving No. 1. The next pieces Nos. 2, 3, are good. If the beef is not salted before it is put to the fire, the proper way is to put some salt and water into the dripping pan, and baste for a while with that, before using its own dripping. And when almost done sprinkle the meat with salt.

The fire must be bright and clear, but not scorching, when the meat is put down. Place it about ten inches from the fire at first, and gradually move it nearer. The long sides should be first exposed to the heat. After the bones are well heated, turn the beef and keep a good steady fire. Baste it often while roasting; use cream or lard for gravy, adding salt as may be necessary. It will take to roast a piece of 8 lbs. from $1\frac{1}{2}$ to 2 hours.

2. *Baked Beef.*

Though not very economical, yet makes a very good family dish. Take a piece weighing about 8 lbs., of either No. 1, 2 or 3, or a rib piece, wash it in cold water, put it into an iron vessel of sufficient size, and set it into a moderately heated oven. Baste with gravy of warm water, salt, pepper and cloves. Let it bake about 3 hours.

3. *Stewed Beef.*

Take 6 or 8 lbs. of the brisket of beef—boil until half done. After gashing it rub it with flour then add the

gravy, carrots, onions, celery and turnips, well sliced, cook moderately, and from $1\frac{1}{2}$ to 2 hours it will be done.

4. *Stewed Beef*—(another.)

Partly roast it, lay it in a stew pan with two quarts of water to a piece of 8 lbs., a gill of vinegar, three table spoonsful of catsup, some salt, cayenne, sweet herbs, onions, and cloves; cover it close, and let it simmer till tender; then keep the meat hot while you skim the gravy—thicken with flour and pour it over the beef.

5. *Boiled Beef*.

If the beef is very salt, soak it $\frac{3}{4}$ of an hour in lukewarm water. Boil it until tender. It is absolutely necessary that it be often skimmed. One quart of water to a pound of beef is sufficient. Then serve it up while it is hot.

6. *Beef Steaks*.

Beef steak should be cut from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch thick. Boil over a very clear fire; turn often, that the gravy may not be drawn out on either side. Put into the dish a table spoonful of catsup, and as soon as taken off the fire rub a piece of butter over it—add salt and pepper, and while it is hot serve it up.

7. *Beef Steaks*—(another.)

The inside of the sirloin is considered the choicest for steaks—(steaks from any part of the animal may be cooked alike, and may also be cut off the same thickness as above)—rub with salt and pepper; have the gridiron hot, and rub the bars with lard. Let your fire be brisk and clear. Turn often, and have a dish ready to let them drip into. Should any of the gravy fall into the fire, remove the gridiron, as the smoke will injure the taste of the meat. In 12 or 15 minutes it will be ready to serve—which should be done immediately.

8 *Beef Steak Fried*.

It gives a fine relish to take a few thin slices of salt

pork, brown them on both sides, remove the pan until the fat cools, when cool add four or five table spoonsful of wheat flour. Mix it with the fat, stir it till it boils, pour it over the meat, and serve it up.

9. *Beef Steak—(French mode.)*

Cut the steaks $\frac{3}{4}$ of an inch thick—take out the bone and skin; rub with salt and pepper; pour melted butter over them, then sprinkle with onions minced fine. Put the whole in a covered dish for $\frac{3}{4}$ of an hour, then broil over a clear fire. Take cold boiled potatoes and fry them, and lay them around the steaks, and pour gravy over the whole.

10. *Roasted Pork.*

If the leg, or any part with the skin on, after washing, take a sharp knife and score it just through the rind, in small squares. Take salt, pepper, and pounded sage, and rub it well before putting it to the fire. Rub a little butter over it to make it crisp well, and baste with its own drippings. Have apple-sauce always if you can to accompany it. It will require $2\frac{1}{2}$ hours to cook it well.

11. *Roasted Pork—(another.)*

Score the rind as before. Stuff with chopped sage onion, pepper and salt. Serve with apple-sauce and potatoes.

12. *Roasted Pork—(another.)*

Score as above. Make a stuffing of bread cut fine, pounded sage, onions, yolk of an egg, pepper and salt. This is to be inserted if the bone is removed, or deep incisions with a sharp knife in the thick part of the leg. Baste it with its own drippings—thicken the gravy with flour.

13. *Boiled Pork.*

Boiled leg of pork. After salting it for nine days,

let it lie in cold water to make it white, then tie it in a cloth; put it into cold water and boil it one hour for every 4 lbs. Serve with pease, turnips, potatoes, parsnips and cabbage or pudding.

14. *Pork Steaks.*

Cut them from a loin or the neck. Broil them over a bright fire, turn them often, and when nearly done add pepper, salt, and rub on a piece of butter. Serve hot.

15. *To Roast a Pig.*

Take a pig from three to four weeks old—cleanse it thoroughly with cold water, make the stuffing with bread crumbs, a small quantity of sage well minced, add salt, pepper, one egg, and a piece of butter the size of a hen's egg, and sew it up; lay it near the fire until thoroughly dry, then rub it over with butter in a dry cloth, flour it well and do not touch it until it is done; then scrape off the flour carefully, rub it again with the buttered cloth. Serve at once—currant sauce, egg sauce gravy and plumed prunes relish well.

16. *Roast Pig—(another.)*

Prepare as above. When nearly done catch the gravy that falls, cut off the head, split and take out the brains, cut the pig down the back, and place the split head around the dish. The common method now is to prepare as above. Put it in the oven, and baste it while cooking with butter, having first rubbed it well with butter. Bread, gravy or egg sauce as an accompaniment. From 1 to 1½ hours sufficient to cook it.

17. *To Bake a Pig.*

It is to be prepared the same as for roasting. Dry it well with flour, put a pint of water in the pan, and a small rack or rods across the baker; after about 1 and $\frac{3}{4}$ hours take it up, rub it with butter, and after drying it for a few moments, cut in quarters and serve as above.

18. *Spare Rib.*

After washing it, dust on some wheat flour and baste

it with butter gravy. Take pounded sage-leaves, and after it is done sprinkle on the sage-powder.

19. *To Stew Fresh Pork.*

Chop in small pieces, put in a pan with cold water simmer or boil slowly until nearly done ; add pepper and salt, skim the liquor, put in 2 or 3 spoonfuls of flour slowly. Cook until done. Serve hot.

20. *Souce.*

Clean and soak them well, and lay them in a little vinegar, water, and salt; if not to be dressed immediately, when they are wanted cut the feet in two, and slice the ears; dip them in butter or flower them, then fry and serve with mustard, vinegar and butter.

21. *Fricassee of Pig's Feet.*

Pickle them in salt and water only—cut the feet and ears into small pieces, boil them in a little milk, then throw that away and simmer in a little fresh meat broth with a $\frac{1}{2}$ of a lemon-peel or onion—add a little salt, flour, butter and cream. Serve.

22. *Jelly of Pig's Feet and Ears.*

Clean and prepare as in the former—boil them in a small quantity of water till all the bones can be separated—add salt, mace, pepper, a little chopped parsley and sage, simmer till the herbs are scalded, and pour the whole into a form.

23. *Sausages.*

Chop 6 lbs. of lean with 2 lbs. of fat pork, 4 table spoonfuls of salt, 6 do. of powdered sage, 4 of black pepper and 2 do. of cloves, a little rosemary may be added. If not stuffed, keep in a vessel tied down close, and when to be used, roll it into cakes, dust them with flour and fry.

24. *Boiled Ham.*

If the ham is dry it will require to be soaked from 14

to 24 hours, then put it into a large sauce pan or pot with cold water; let it simmer three or 4 hours, then boil until done—say $1\frac{1}{2}$ hours. When done remove the skin carefully, cover it again after it gets cold. It gives the best flavor not to cut it until it is cold.

25. *To Fry Ham.*

Cut the ham through the middle, cover the pan, as by retaining the steam it will make it tender. When nearly done remove the cover that the steam may evaporate.

26. *To Roast Veal.*

Veal must be roasted a fine brown, and must not be placed too near the fire at first; baste a shoulder well till near done, then flour and baste it with butter. It can be served with melted butter and slices of lemon cut thin.

27. *Veal Stuffing.*

Chop small 4 ozs. of beef suet, a little parsley and lemon peel, add pepper, grated nutmeg, salt, bread crumbs, and mix with 2 eggs.

28. *Veal Stewed.*

It may be done whole or cut in pieces—stew it with no other addition than pepper and salt, in as much water as will cover it; shut the vessel close, and stew until the meat is perfectly tender. Asparagus and mashed potatoes are suitable vegetables.

29. *Veal Boiled.*

It may be cut with small pieces, boiled with potatoes until tender, thicken with flour and butter, season with pepper and suet.

30. *Veal Cutlets.*

Cut them $\frac{1}{2}$ an inch thick, put them over a bright fire—when nearly done put in a little flour in the pan, pour in some boiling water, pepper, butter and salt. Serve hot.

31. *Veal Cutlets—(another.)*

Wet them with egg, dip them in bread crumbs mixed with parsley, salt, pepper, and fry them. Lay them in a dish and keep them hot, then put a little flour and butter in the pan, brown it, add catsup and pour over them.

32. *To Boil Calf's Head.*

Soak it for 2 hours, wash it clean, and boil it in a cloth to preserve the color; boil the brains with a little parsley, chop them small, and warm them in a sauce pan with some butter, salt and pepper. Boil and peel the tongue—lay it in the middle of a small dish with the brains round it, and serve with the head accompanied with bacon.

33. *To Roast a Leg of Mutton.*

A slow fire at first, to heat it gradually; it will take from two to three hours, according to the size. Vegetable—potatoes are universally admitted to be a proper accompaniment.

34. *Leg of Mutton to Boil.*

Cut off the shank bone, trim the nuckle close, and boil $2\frac{1}{2}$ hours. Parsley and butter, or caper sauce, may be used. Potatoes, turnips and spinnage, are all good.

35. *To Stew a Shoulder of Mutton.*

After it has hung sufficiently long salt it for 2 days, then bone it, season it with pepper and pounded mace, roll the meat tight and tie it. Stew it in a little water with an onion and a few pepper corns, till tender; when done thicken the gravy with flour and pour it over the meat.

36. *Mutton Steaks.*

Should be boiled over a clear fire, seasoned when half done, and often turned—take them up in a very hot dish, rub a little butter over them, and serve quite hot.

37. *Mutton Corned.*

Remove the fat, cut in 2 or 3 lb. pieces; one part of rock salt to 3 parts of water, into which put the mutton. In 3 days it will be fit for boiling, which can be done with potatoes and turnips.

38. *Mutton Sausages.*

Take 2 lbs. of rare-done fresh mutton, 8 ozs. of beef-suet, 4 anchovies, and some sweet herbs; chop them fine, season them with nutmeg, pepper, and salt, add half lb. of grated bread, 2 eggs well beaten, mix it well, put it, and when used roll it into balls or sausage shape for frying.

39. *To Roast Lamb.*

After preparing it and rubbing it with butter, sprinkle it with pepper and salt; put a piece of butter in the dripping-pan, and baste it often. It should be well cooked to be healthful. It requires 2 hours to be thoroughly done.

40. *Lamb Cutlets.*

Cut them from the loin, and fry them—put some spinage into the dish, place the cutlets round it, and serve them up hot.

41. *Lamb's Head.*

After thoroughly cleansing, soak the head 2 hours in cold water, and boil it until tender; parboil the liver and lights, mince them small, and stir them in a little water in which they were boiled—add seasoning—thicken with flour and butter, and serve the head with the mince around it.

42. *To keep Venison.*

Wash it with milk, and dry it thoroughly with clean cloths, then dust pounded ginger over it, which will keep away the flies. When it is to be used wash it in warm water.

43. *To Roast Venison.*

Wash it with vinegar and water; flour, salt and peppe

it, paste it with butter; add cloves and nutmegs to the gravy and pour over it, and serve immediately.

44. *To Hash Venison.*

Cut the meat in slices, make a gravy of butter, pepper, salt and water, sufficient to let it remain until tender.

45. *Venison Steaks.*

Fry over a clear fire, season as above, and serve with currant jelly.

46. *To Fry Calf's Liver.*

Cut the liver $\frac{1}{2}$ inch thick—season with parsley, salt, pepper and onions; flour it, fry brown in lard or its own drippings. It needs to be well cooked. Beef's liver or a calf's heart may be cooked in the same way

47. *To Boil a Tongue.*

If dried, steep in water one night; if pickled, only wash it—and boil slowly three hours.

48. *Tripe.*

Tripe, if raw, will require four hours slow boiling—it may be boiled in milk or milk and water. Serve with onions, or parsley and butter, or caper sauce. Tripe may be cut in pieces and dipped in butter and fried. Mustard and vinegar are generally used with it.

49. *Directions for Poultry.*

All poultry should be drawn or dressed as soon as killed. After carefully picking, it should be singed with clean paper; great care should be taken not to break the gall-bladder; a brisk fire is always necessary. Tame fowls are longer in cooking than wild ones.

50. *To Roast a Turkey.*

Wash the turkey thoroughly, make a stuffing of

sausage meat or take bread crumbs, green parsley, $\frac{1}{4}$ lb salt pork chopped fine, one lemon peel, butter, salt, pepper, and nutmeg mixed with one egg; fill the crop and body of the turkey with the stuffing and sew it up; tie up the legs and wings; put on the breast white paper to keep it from scorching; rub on a little butter, salt and flour it before putting it to the fire; it must be roasted slowly at first and basted often. After it has been to the fire half an hour put half a pint of water in the pan. It will take from 2 to 2 $\frac{1}{2}$ hours for a large turkey to roast; when nearly done flour it again, and pour the gravy over the turkey and serve. Turnips, potatoes, cranberry sauce, &c., are used as accompaniments.

51. *To Roast a Turkey—(another.)*

Prepare as before, stuff with suusage meat, cover the breast with paper to prevent its scorching; baste well and froth it up; serve with gravy in the dish, and bread sauce in a tureen.

52. *To Boil Turkey.*

Prepare as above, stuff it with bread, suet, &c., and boil it in a floured cloth; serve with sauce.

53. *Fricasseed Chickens.*

Parboil them in a small quantity of water, let them cool, and cut them up; meanwhile add to the liquor they were boiled in, the trimmings of the fowls, a little lemon peel, pepper, mace, herbs, and an onion; stew it well and strain it; then simmer the fowls in it till quite tender—take them up and keep them hot; thicken the sauce with floured butter, a grate of nutmeg, and salt give it one boil and stir in the yolk of an egg; beat in half pint of cream, which must not be boiled.

54. *Fricasseed Chickens—(another.)*

Cut the chickens in pieces and put them in warm water for 15 minutes to soak out the blood, scald and

take off the skin, put it into a stew-pan with one pint of water, season with parsley, lemon peel, pepper, herbs, onions—stew it well. Make a gravy of a teacup of sweet cream and the yolk of an egg, stirring it carefully. This gravy must not boil. Serve as soon as done.

55. *Chicken Pie.*

Cut up 2 young fowls, place them in a deep dish covered with paste, with thin slices of salt pork or ham, put in cold water or weak cold gravy enough to cover them. In a small pie put in 2 ozs. of butter, a sprinkle of flour, put on a light crust and bake in a quick oven. One hour will be sufficient.

56. *Chicken Pie—(another.)*

Cut up and parboil 2 young fowls, season with butter, pepper, salt and nutmeg, covering the dish with paste; place the chickens upon it with some thin pieces of pork, veal or force meat, cover with a thick crust, and bake $1\frac{1}{2}$ hours. Put in some warm gravy before rendering it to the table.

57. *Chickens Curried.*

Take the skin off and cut them up, and fry in butter to a light brown, with sliced onions; lay the pieces in a stew pan with garlic and some veal gravy; simmer till quite tender; add flour and one ounce of butter, $\frac{1}{2}$ pint of cream, some salt and pepper—put an edging of rice round the dish, and serve hot.

58. *To Roast Ducks.*

Ducks may be stuffed the same as geese. If young, from 45 minutes to an hour will be sufficient time to roast a duck. Serve with gravy.

59. *To Roast Ducks—(another.)*

Ducks may be roasted as soon as killed; have a bright fire, stuff with bread crumbs, season with sage, butter.

pepper and salt. The gizzards and livers can be par-boiled, chopped and put into the gravy.

60. *Boiled Ducks.*

Salt them for two days, then boil in a cloth very slowly—serve with onion sauce, made of milk instead of water.

61. *To Roast a Goose.*

Pick, singe, and clean well—make the stuffing of about 3 onions, some green sage chopped very fine, add a large coffee cup of stale bread crumbs and the same of mashed potatoes, a little pepper and salt, a bit of butter as big as a walnut, the yolk of an egg—mix, and stuff the goose. Do not fill entirely, the stuffing requires room to swell. Spit it—the fire must be kept brisk. Baste with salt and water at first, then with its own drippings. It will take two hours or more to roast it thoroughly.

62. *To Roast a Goose—(another.)*

A young goose under 4 months old, may be seasoned with pepper and salt, instead of sage and onions. It will roast in an hour.

63. *Pigeons.*

They may be either *roasted, potted, stewed or boiled.* Potting is the best and least trouble. After they are thoroughly picked and cleaned, put a small slice of salt pork and a little ball of stuffing into the body of every pigeon. Flour the pigeons well, lay them close together in the bottom of the pot, just cover them with water, throw in a bit of butter, and let them stew an hour and three-quarters if old, or an hour and a quarter if young. Some people turn off the liquor just before they are done, and brown the pigeons on the bottom of the pot, but this is very troublesome, as they are apt to break in pieces.

64. *Stewed Pigeons.*

Cook nearly the same as above, with the omission of

the stuffing. Being dry meat they require a good deal of butter.

65. *To Roast Pigeons.*

Put them on a little spit, and tie both ends close. Baste with butter. They will be done in 15 or 20 minutes.

66. *Pigeon Pie.*

In making pigeon pie, put inside of every bird a piece of butter and the yolk of a hard boiled egg.

67. *Fish.*

Fish should be thoroughly cleansed, and well cooked. Fresh fish not sufficiently cooked is exceedingly unwholesome as well as unpalatable.

68. *To Boil Salmon, Sea Bass and other large Fish.*

Put the fish in cold water—when it boils skim it with the greatest care; season with salt and vinegar; cook until the bones will separate easily. Serve with butter melted, mixed with vinegar as gravy.

69. *To Fry Trout and other small Fish.*

After they are cleaned, dry them on a board—dusting them at the same time with some flour. Brown them—serve with crimp, parsley and melted butter. It will greatly improve the appearance of eels at the table, if, when fried, they are dipped into egg and crumbs of bread.

70. *Codfish.*

Fresh Cod is too dry to broil, but is good boiled, fried, or made into chowder. *Salt Cod* should be soaked in warm water until the skin will easily come off, then put in fresh water—it should be set on a very moderate fire; let it simmer until done—boiling hardens it. It requires 3 or 4 hours to cook it soft. Serve it up with drawn butter.

71. *Fish Cakes.*

Cold boiled fresh fish, or salt codfish, minced fine,

with potatoes, moistened with a little water, and a little butter put in, done up into cakes of the size of common biscuit, and fried brown in pork, fat or butter.

72. *To Broil Shad.*

After it is cleansed, split open, sprinkle with salt, lay it upon a gridiron, well buttered. With a clear fire it will broil in about 20 minutes. It should be thoroughly done. Serve while hot with melted butter if you choose.

73. *To Bake Shad.*

Stuff with mashed potatoes and chopped parsley. Let your pan be well covered with butter; baste with the same, adding fresh quantities as need may require. Serve hot.

74. *To improve the flavor of Fresh Water Fish.*

That muddy smell and taste, peculiar to fresh water fish may be removed by soaking in strong salt and water after it is nicely cleaned, or if a size to bear it, scald in the same, then dry and dress.

75. *Chowder.*

Take some thin pieces of pork and fry brown; cut each fish into several pieces, place them by layers in your pork fat, sprinkle a little pepper and salt—add cloves, mace, sliced onions; lay on bits of fried pork if you choose, and crackers soaked in cold water, then turn on water just sufficient to cover them, and put on a heated bake pan lid. After stewing about 20 minutes, take up the fish, and mix two teaspoonfuls of flour with a little water, and stir it into the gravy, adding a little pepper and butter, catsup and spices also if you choose. Cod and bass make the best chowder. Clams and black fish tolerably good. The hard part of the clam should be cut off and rejected.

76. *Lobsters and Crabs.*

Put them into boiling water, salted with six spoonfuls

of salt to every four pounds of fish. Let them boil from 30 to 40 minutes. When cold break the shell, take out the meat—*be cautious to extract the blue veins*, and what is called the lady in the lobster—these are very unhealthy; eat cold with a dressing of vinegar, mustard, sweet oil, salt and cayenne, or warm them up with a little water, vinegar, salt, pepper—and add, if liked, a rich gravy and grated nutmeg. A similar process may be observed for crabs as for lobsters.

77. *To Roast Clams.*

Never buy those of thick edge, as the thin edges are the tenderest. Wash clean, place them flat in an old tin or iron pan to save the liquor, and set the pan over a furnace of ignited coals. As they become sufficiently roasted take them out singly, empty the liquor of each into your dish, then take out and add the clam, either cut in pieces or whole—add butter, salt and pepper.

78. *An Indian Clam Roast.*

Wash them—put them point downwards on the earth or hearth, kindle a light combustible fire upon their hinges, and when done they will be delicious.

79. *Clam Pancakes.*

Mix flour and milk for a batter, with an egg; the clams may be put in whole, after being first stewed, or they may be only taken out of the shell and chopped fine.

80. *Long Clams.*

Select the largest—take them out of the shell and broil them, or they may be stewed. Season to the taste.

81. *Oysters Fried.*

Large oysters are the best for this purpose—simmer for a minute or two in their own liquor; drain perfectly dry; dip in yolk of egg and then in bread crumbs; season with nutmeg, cayenne and salt; fry them of a

light brown. If to be eaten alone make a little thick melted butter, moistened with liquor of oysters, and serve as sauce.

82. *To Stew Oysters.*

Preserve the liquor in opening them, and strain it; wash the oysters from the grit; simmer them very gently with their liquor with some pepper, lemon peel and mace—add some cream, flour and butter, and serve with sauce.

83. *Vegetables.*

Cook vegetables until perfectly done if you would have them healthy, and as far as practicable get them fresh. See that they are well cleansed from insects. Always boil them in plenty of water very fast, and if the boiling has not slackened, they are done when they begin to sink.

84. *To Boil Potatoes.*

Peel round a narrow strip in a ring, before putting them in a pot, to give them a chance to burst, and become mealy. Do not let them stop boiling for an instant, and when they are done, turn the water off completely, and throw in a little salt, which will absorb the moisture remaining. Old potatoes will boil in the course of half an hour—new will take less time. Sweet potatoes are better baked than boiled.

85. *To Boil Cabbage.*

Examine closely lest insects be lurking in the folds, then boil for an hour.

86. *Cauliflowers.*

Trim off the outside leaves, leaving just one around of such as are young; boil according to the size, from fifteen to twenty minutes; try the stalk with a fork, and when it feels tender it is done enough, and should be instantly taken up; let it drain a minute; serve it up in a dish by itself, with plain melted butter in a sauce-pan.

87. *Celery.*

Makes an excellent addition to salads—gives an

agreeable flavor to soups and sauce, and is sometimes stewed as an accompaniment to boiled or stewed meat. Wash six or eight heads, trim off the outer leaves, cut the heads up in bits 3 or 4 inches long, stew them till tender in half pint of veal broth; then add two spoonfuls of cream, and an ounce of butter rolled in flour. Season with pepper, salt and nutmeg, and simmer the whole together.

88. *Carrots.*

Very young carrots will boil in half an hour or less. Large old carrots will take 2 hours or more to boil them thoroughly; carrots are always best boiled with meat which they do not injure; melted butter to young carrots; no sauce to old carrots, which are generally dressed with salt beef or pork.

89. *Parsnips.*

Clean and dress just the same as carrots; they require boiling from one to two hours, according to their size and freshness; they are sometimes mashed with butter, pepper, salt and cream or milk, the same as turnips. They are eaten alone, or with salt beef; salt pork or with salt fish. Melted butter and vinegar make good sauce for them.

90. *Beets.*

Should not be cut or scraped before they are boiled, or they will become insipid by the loss of their juice. They will boil in an hour; in the winter it takes 3 hours to boil them tender. The tops make excellent greens in the summer. Boiled beets cut in slices and pickled in vinegar spiced, for several days, are very nice.

91. *Turnips.*

Put in the water boiling, with a little salt; when tender take them up, and let them drain thoroughly. They will take from half an hour to an hour boiling; mash them, taking out all the lumps and strings, then return them to a sauce pan, with an ounce of butter, a spoon-

ful of cream, and a little pepper and salt—stir well till the butter is melted, and the whole well mixed.

92. *Asparagus.*

Tie in bundles and put into a tin sauce pan of boiling water, with a spoonful of salt; boil from 12 to 20 minutes, according to their freshness; take up the moment they are tender, to preserve their color and flavor; serve on a toast with the heads inward—melted butter. Some people like it hastily dipped in the liquor in which the asparagus is boiled, others like a dry toast spread with butter, and the hot asparagus immediately laid upon it.

93. *Green Peas.*

Choose them when just come to their plumpness, while the pod is of a bright green, and snaps easily. Boil them briskly in a small quantity of water, put in a spoonful of salt and a lump of sugar; stir in a piece of butter, and shake a little pepper. From 15 to 20 minutes, if young, will be sufficient.

94. *Sweet Corn.*

It is sweetest when boiled on the cob—but if made into sucatosh, cut it from the cob and boil it with Lima beans and a few slices of salt pork. It requires boiling from 15 to 20 minutes, according to its age.

95. *Onions.*

It will diminish the strong taste of onions to boil them in milk and water. After they are boiled chop them, and put them into a stew-pan with a little milk, butter, salt and pepper, and let them stew about 15 minutes. This gives them a fine flavor. Serve hot.

96. *Tomatoes.*

Peel and put them into a stew-pan with a little water, if not very juicy, if so, no water will be required. Put

in a little salt and stew them for half an hour, then turn them into a deep dish with buttered toast. Serve hot.

NOTE. If the tomatoes are very ripe their skin will easily peel off; if not, pour on scalding water, and let them remain in it 4 or 5 minutes.

97. *Tomatoes—(another.)*

Put them in a deep dish with fine bread crumbs, crackers pounded fine, a layer of each alternately; put small bits of butter, a little salt and pepper on each layer; have a layer of bread crumbs on the top. Bake it three-quarters of an hour.

98. *Beans.*

Young beans with green eyes are the best. They are old and strong when their eyes are dark; put them into plenty of boiling water, and a spoonful of salt—boil till tender, and take them up immediately, for if you do not the skin will shrivel; stir a lump of butter with them. From 20 minutes to half an hour they will be done. Serve hot.

99. *Spinage.*

Pick leaf by leaf; wash in three waters; drain thoroughly; boil very quickly without adding any water, as that which hangs around it after washing is sufficient. Seven or eight minutes will boil it; strain it on the back of a sieve, or squeeze it between two plates. Serve with rare boiled eggs, and buttered toast, or slices of fried bread.

100. *Salad.*

Let it be carefully picked, washed, and dried, but do not add the dressing until just before eating. The most simple way of dressing salad, is perhaps the best—certainly the most wholesome—salt, vinegar and sugar, trimmed with egg that has been boiled 12 minutes; put into cold water, sliced, and laid upon the salad.

NOTE. Under this head is reckoned celery, cucumbers, radishes, red beet, young onions, dandelion, &c.

101. *Cucumbers.*

If eaten raw, pare and slice them with slices of onion, if approved, which correct their crudity and render them less unwholesome: the pickle for them consists of pepper and salt (oil, if desired,) and vinegar; any addition of eggs, &c., spoil them.

102. *Squashes.*

Cut up the squashes in pieces of an inch thick, having first pared the squash—if old, extract the seeds, and boil the pieces until they break; mash them with a spoon; boil them a little longer, and when they are done, squeeze them through a cullender. Mix them with a little salt and a small quantity of butter.

103. *Winter Squash.*

They are stewed in the same manner as others; but they require a little more time for cooking them.

104. *To Boil Rice.*

After preparing the rice by picking, and rinsing it in clean water until the water is clear, then put it into an iron pot; when it boils skim it; but do not stir it after it begins to swell; 1 pint of rice to 1 quart and $\frac{1}{2}$ pint of water, with a little more than a teaspoonful of salt will be about the proper proportions. It will boil sufficiently in about half an hour.

105. *Mushroom Catsup.*

Be careful to obtain the right sort of mushrooms, and fresh gathered—the large full-grown flaps are the best—if of the right sort and of good order, the fringe underneath will be of a delicate pink: if black, they are stale. Do not wash them if you can make them clean without, put them in a deep stone or earthen pan; a layer of salt and a layer of mushrooms; $\frac{1}{2}$ tumbler of salt to a gallon. When the salt begins to penetrate them, which will be in two or three hours, they will easily break; then mash

them well with the hands and stir up the whole mass: do this repeatedly for two days, then add to every quart $1\frac{1}{2}$ ounces of black pepper, and one tablespoonful of mixed spice, clove, alspice and mace; put all together in a stone jar; stop the jar very close; set it in a stew pan of boiling water, and keep it boiling for at least two hours; then take out the jar, and pour the juice through a hair seive first wet in water; but avoid pressing the mushrooms; put the liquor over the fire, and boil till reduced one half; then skim it well, and put it in a clean jar or jug; cover it close, and let it stand in a cool place till next day; then pour it off gently, so as not to disturb the settlings. To preserve it, you may add half a pint of brandy, or boil again whenever a white scum forms on the top and skim it.

NOTE. The remaining pulp and sediment may be simmered with a small quantity of water and vinegar, and then squeezed—good catsup for the present use—but which of course will not be so finely flavored, or keep, as the first preparation.

106. *Tomato Catsup.*

Peel off all the skin from the tomato, which may be done with ease by pouring boiling water over them; after cutting them up and putting them in a stone jar, to each gallon two tablespoonsful of fine salt may be added; boil by setting the jar in a pot of boiling water at least three hours; then wring the boiled tomato through a piece of stout wet cloth; four tablespoonsful of whole black pepper may be added to each gallon of the liquor; then boil an hour; when cold, bottle; it will keep for years—the older the better; should a scum rise on the top, boil again, adding whole spice.

107. *Walnut Catsup.*

Take eight quarts of green walnuts, the size for pickling; put them in a tub; sprinkle them with fine salt, the proportion of $\frac{1}{2}$ lb. to 100 walnuts, or a pint to the 8 quarts; let them lay six days, frequently beating and mashing them; they will then become soft and pulpy:

then press them in a clean cloth that has been previously wet, and there will be about 2 quarts of liquor; add to it two tablespoonsful of whole pepper, one of mixed spice, mace, clove and alspice, a piece of horseradish cut small, and a piece of ginger broken; boil an hour and skim; then add a pint of vinegar; when quite cold, bottle, dividing the spice in proportion to each bottle; see that the bottles are quite filled up; cork them tight; keep them lying on the side, in a cool, dry place for a year before using.

108. *To Keep Ready Made Mustard.*

Boil a quart of vinegar; dissolve it in three ounces of salt; pour it upon two ounces of scraped horseradish in an earthen jar; cover the jar closely; let it stand 24 hours; strain, and by degrees mix in one pound of the best mustard; put it into a wide-mouthed bottle, and cork it closely; whenever a little is taken out for use, observe to cork the bottle immediately.

109. *Broths and Soups.*

When broth is wanted for *wholesomeness*, i. e. for the use of invalids, or children, it should be free from all addition of spice and herbs, which are apt to disagree with a delicate and already deranged stomach. The more simple the better, and the more really nutritive.

In making soup, it is well before you commence to determine how much you shall want; 2 quarts of water and three pounds of meat to each quart of soup is a good rule by which to be guided as to proportions of solids and fluids.

110. *Chicken Broth.*

The bones of fowls as they come from the table, together with the heads and feet, make a basin of good broth, especially if the fowls were boiled, and the liquor is used for the broth; boil till the bones are quite white. Some people, when chicken broth is ordered, cut up a fresh fowl and stew down; but this is a needless piece of extravagance—the more economical mode is equally good. Chicken broth may be enriched by the addition

of a piece of lean beef or other meat, or a knuckle bone of veal, and three or four shanks of mutton.

111. *Mutton Chop Broth.*

Cut as much as is required into thin chops, from the neck or loin of mutton—put them into a stew-pan and cover with cold water, with an onion or two and a little salt; stew slowly three-quarters of an hour, and when it boils skim well—turnips and potatoes may be boiled in this liquor, or boiled separately and mashed. Serve the broth and meat together.

112. *Veal Soup.*

To a knuckle of veal of six pounds allow half pound of bacon; cut it in slices, and lay at the bottom of the stew-pan, and then the veal having the bones broken in several places; put cold water sufficient, about $1\frac{1}{2}$ pints to a pound of meat; when it boils and has been skimmed add onions, celery, carrots, turnips and savory, also a little black pepper, alspice and cloves. If thickened soup is preferred, it may be done by stirring in a few table spoonsful of flour while the soup is simmering. It should boil at least six hours.

113. *Beef Soup.*

Take 4 lbs. of the lean of fresh beef, and put it into three or four quarts of cold water, with a little salt; set it over a good fire; let it boil slowly and constantly for 6 hours, and skim well; then put in what quantity you please of carrots, turnips, leeks, celery and parsley, all cut into small pieces. It will improve the soup by boiling in it the remains of a piece of cold roast beef. When you take up the soup have ready in the tureen some toasted bread; cut in small squares; pour the soup over the bread. Serve hot.

NOTE. Mutton soup may be made in the same manner

114. *Calf's Head, alias Mock Turtle Soup.*

Dress the head by cutting it open, taking out the brains

and tongue, chopping off the teeth; scrape, soak and wash the whole very neatly; to remove the slime from the inside of the throat, nostrils and ears, rub with fine salt; cut the black from the eyes; also cut open the heart, put the liver to soak in a pail of cold water. Put the head and heart in a large iron pot with eight quarts of water, salt it, boil and skim as long as any scum will rise, then let it simmer three or four hours, or till the bones will separate from the meat; take it up and remove the bones; take out all the skin, sweetbread, and the brain. The tongue having been parboiled and peeled off, and then put with the soup, should also be taken out with the other delicate parts. These must all be cut into small pieces about an inch square, and laid aside until the soup is nearly done, when they must be put in long enough to get hot through. Put the soup over the fire again with the course meat still in it—having cut the liver in thin slices fry them brown; put half of these slices into the soup, cut the other half into small squares, and put them aside with the other pieces that are to go in at the last. Add to the soup a table spoonful each of whole black pepper, cloves and alspice, and a lemon cut in thin slices; let it stew two or three hours longer, or till the liquor is reduced to 4 quarts; then throw in the pieces of meat that have been set aside for the purpose, and in a few minutes it will be ready for use. Serve hot.

NOTE. If very particular, before you throw in the pieces of meat that have been set aside for the purpose, strain the soup, let it settle; take all the fat off from the top, and pour it carefully from the sediment at the bottom; return the clear soup to the fire; have six or eight hard boiled yolks of eggs, braid them smooth in a bowl with some of the soup, then put to the rest to thicken it; throw in the pieces of meat that have been set aside for the purpose; put in each tureen one dozen yolks of hard boiled eggs; add half pint Madeira wine and two glasses of catsup to the soup five minutes before you take it up—it must not boil after the wine is in. Serve hot.

115. *Mock Turtle Soup—(another.)*

Parboil a calf's head divided, and cut all the meat in

small pieces; then break the bones and boil them in some beef broth; fry some shalots in butter, add flour to thicken, and stir it in; skim it carefully while it boils up, and add a pint of white wine—let all simmer till the meat is perfectly tender, then put in some small onions, parsley, basil, salt, cayenne, and mushroom catsup to your taste, and boil it in for 10 minutes. Squeeze a little lemon juice into your tureen, pour your soup on it, and serve.

116. *Hessian Soup.*

Clean half a bullock's head and tongue with salt and water, and then let them soak in water only; stew them in six quarts of water, till tolerably tender, and when the soup is nearly cold, take off the fat, which will do to baste with, or will make good paste for hot meat pies. Add some sweet herbs, celery, onions, potatoes, turnips, carrots, and a pint of split peas; simmer them without the meat, till the vegetables are sufficiently done to pulp through a seive, and season with cayenne, salt pepper, cloves, mace and alspice, all in fine powder. The soup should be about the thickness of cream; if not thick enough, add a little rice flour, mixing it by degrees.

117. *Oyster Soup.*

Take the yolks of ten hard eggs; two quarts of oysters; simmer for half an hour; stir in the yolks of six raw eggs well beaten, and when it is thick and smooth, serve with toasted bread.

118. *Tomato Soup.*

Take the red part of three large carrots well washed and scraped, three heads of celery, four large onions and two large turnips; put them into a sauce-pan with a tablespoonful of butter, and $\frac{1}{2}$ lb. of lean ham; let them stew very gently for an hour; then add three quarts of brown gravy soup, and some whole black pepper, with eight or ten ripe tomatoes; let it boil an hour and a half, and pulp it through a seive. Serve it with fried bread.

119. *Clam Soup.*

Boil a knuckle of veal in as much water as will cover

it well, for 15 or 20 minutes; and having opened half a peck of clams, pour the juice into the pot containing the veal, and it will make the soup sufficiently salt; season with a tablespoonful of pepper, and let it boil 3 or 4 hours; then having cut up the clams in small pieces, throw them into the soup, with a quarter of a pound of butter cut into bits, and if you please, roll the butter in flour; boil half an hour; toast a few slices of bread, cut in pieces, and add them to the soup.

120. *New England Chowder.*

Take a pound of salt pork that is fat; cut it in strips, and fry out the oil; then take out the pork and put into the pot with the oil a layer of haddock, cod, or any other solid fish cut in pieces three inches square, then a layer of onions in slices, then a layer of fish with slips of fat salt pork, and so until you finish the layers. Mix some flour with as much water as will fill the pot; season with black pepper and salt to your taste, and boil for half an hour; have ready some crackers soaked in water till they are a little softened; throw them in your chowder five minutes before you take it up. Serve in a tureen.

121. *Rice and Meat Soup*

Take two quarts of water for one pound of rice, a little pepper and broth herbs added; cover them close and simmer very softly; put in 2 lbs. of beef and a little cinnamon, and boil the whole till the goodness is incorporated by the liquor.

122. *To Boil Rice.*

Having cleansed and prepared the rice, put it into a pot of boiling water with a little salt—a tea-cup of rice to a quart of water is about the right proportion. Let it boil about 17 minutes; then pour the water off very close; set the pot over a few coals and let it steam 15 minutes, with the lid of the pot off. Boiled in this way each kernel of the rice stands out by itself while it is quite tender. Serve while hot, with drawn butter and sugar.

123. *Hominy.*

After having washed the hominy with cold water, let it be boiled with sufficient water to cover it, adding salt to the taste; it requires boiling over a slow fire from 4 to 5 hours. Serve with butter and molasses or sugar and milk.

NOTE. It is considered extremely wholesome food, especially for children and delicate persons.

124. *Eggs.*

See that they are perfectly fresh. You may test their freshness by putting them in cold water; the freshest will sink the soonest. If you wish to preserve eggs for any length of time, put them in a jar of salt or lime water, with the small ends downwards; the salt should not be used afterwards. Eggs may be preserved several months by greasing them all over with melted mutton suet, and wedging them close together in a box of brar, the small ends always downwards.

125. *To Boil Eggs.*

In boiling eggs, it is always safe to go by time; in 3 minutes an egg will boil soft if put into boiling water; in 4 minutes the white part is completely cooked; in 5 minutes the yolk is boiled soft, and in 10 minutes it is hard enough for salad.

NOTE. For health, an egg should not be boiled more than 3 or 4 minutes.

126. *Eggs and Bread.*

Break ten eggs into the following preparation, viz.: a handful of bread crumbs put into a sauce-pan, with a small quantity of cream, salt, pepper, and nutmeg, and let it stand until the bread has imbibed all the cream; beat up the eggs with it, and fry until done. Serve hot.

NOTE. This is a very palatable dish.

127. *Pickles.*

The most simple method of pickling is to put the

articles in cold vinegar; this method is perhaps the best for those vegetables which are hot in themselves, and do not require the addition of spice. Another method of pickling is that of heating the vinegar and spice, and pouring them hot over the vegetables to be pickled, which are previously prepared by sprinkling with salt, or immersing in brine. But the best method is to put the vinegar and spice in a jar, bung it down closely, tie a bladder over it, and let it stand by the fire for three or four days, and well shaken three or four times per day.

Never pickle in iron or brass, copper or bell-metal vessels, as they are extremely poisonous. Block tin or porcelain are the best for pickling. Be sure and always keep your pickles well covered with vinegar, which should be boiled only about five minutes before using.

128. *To Pickle Young Cucumbers.*

They should be small, green, and of a quick growth; cover them with brine, composed of a pound of salt dissolved in a quart of boiling water, and left to become cold. Cover down the jars, and set them on the hearth before the fire two or three days till they become yellow; then pour off the brine, drain the cucumbers, scald and dry the jar, return the cucumbers, and cover them with vinegar; set them again before the fire, and let them remain until they become green, which will be in eight or ten days. Then pour off the vinegar, and put to them a pickle of fresh vinegar, prepared with the following spices: To each quart black pepper, two ounces; ginger, one ounce; salt, one ounce; cayenne, half a dram; mustard seeds, an ounce.

NOTE. The vinegar in which cucumbers were greened, should be bottled. It will make good sauce for cold meat and salads. Cucumbers are often steeped in vinegar, on purpose to give it a flavor.

129. *To Pickle Onions.*

Should be chosen about the size of a marble—the white skinned sort are the best. Prepare a brine, then put them into it hot; let them remain a day or two; then

drain them, and when quite dry, put into clean dry jars, and cover them with hot pickle, in every quart of which has been steeped one ounce each of horseradish sliced, black pepper, allspice, and salt, with or without one ounce of mustard-seed.

NOTE. In all pickles the vinegar should always be two inches or more above the vegetables, as it is sure to shrink, and if the vegetables are not thoroughly immersed in pickle, they will not keep.

130. *To Pickle Tomatoes.*

The tomatoes should not be very ripe when used for pickling. Take a large stone jar, put in an ounce of mustard, half an ounce of cloves, half an ounce of pepper, fill the jar half full of the best vinegar, and then lay in the tomatoes, mixing amongst them a dozen or more whole onions. Let the jar be closed for a month, when the pickle will be fit for use.

NOTE. Be careful to close the jar every time that any of the pickles are taken out. If these precautions are followed, the tomatoes will keep a year.

131. *To Pickle Mangoes.*

Muskmelons will answer every purpose, and are to be preferred. They should be green and hard. Cut them open after they have been in salt water 10 days; scrape the inside out clean; fill with mustard seed, allspice, horseradish, small onions, &c. and sew up again. Let there be then scalding vinegar poured upon them.

132. *To Pickle Green Peppers.*

Choose those that are half ripe; extract the core and seeds by making a small hole at the top and another at the bottom of the pepper; simmer the peppers for a whole day in salt and water, over a very moderate fire; stir them often, that those at the bottom may not burn. Leave them over night to cool, and the next morning lay them gently into a jar, sprinkle a small quantity of mustard over them, and fill up the jar with cold vinegar.

133. *To Pickle Barberries.*

Are very good pickled, and are useful in ornaimenting certain dishes. Leave the barberries on the stem—lay them in a stone jar and fill it up with cold vinegar.

134. *To Pickle Cabbage.*

Quarter the firm head of the cabbage; put the parts in a keg; sprinkle on them a good quantity of salt, and let it remain on them five or six days. To a gallon of vinegar put an ounce of mace one of pepper-corns and cinnamon. Cloves and alsprice may be added, but they darken the color of the cabbage. Heat the vinegar scalding hot, add a little alum, and turn it while hot upon the cabbage—the salt remaining. It is necessary to turn the vinegar from the cabbage several times, and scalding it, return it again while hot. This makes them tender.

135. *Tomato Pickle.*

Pickles are made of the green fruit, in the same way as you make cucumbers or other pickles. The ripe fruit may likewise be pickled, and some prefer it. It is doubtless one of the most wholesome, or, allowing that pickles are unhealthy, it is the least unwholesome.

136. *To Pickle Cauliflowers.*

Choose such as are firm, yet of their full size; cut away all the leaves and pare the stalk, pull away the flowers by branches; steep in brine two days, then drain; wipe dry and put into hot pickle prepared as above.

137. *To Pickle Red Cabbage.*

Choose fine firm cabbages—the largest are not the best. Those of middling size are preferable. Trim off the outside leaves; quarter the cabbage; take out the bard stalk, as it is not the most wholesome, if it is deemed by some the best part of the cabbage; then slice the quarter into a cullender, and sprinkle a little salt between the layers. Let it remain in the cullender until

next day; shake it well that all the brine may run off; put it in jars and cover with a hot pickle, composed of black pepper and alspice, of each one ounce; ginger pounded, horseradish sliced, and common salt, of each half an ounce; to every quart of vinegar, two peppers or one dram of cayenne.

NOTE. This is very palatable, but should be eaten as an accompaniment, and therefore sparingly. It is not very digestible.

138. *To Pickle Peaches.*

Take two gallons of vinegar, and put to it one quart of well-made mustard; take the cloves of a large head of garlic, split and add them, with some ginger root sliced thin; then take peaches at their full growth, but before they are ripe lay them in a brine that will bear an egg for strength; let them remain a week or two, or three, then take them out, wipe them and put them into the above pickle, which must be previously boiled. They will be fit to eat in four months.

139. *Gravies and Sauces.*

To have an elegant dish the gravies and sauces must be suitable and appropriate. Gravy is much richer and better flavored if prepared from several kinds of meat; but nearly all kinds of meat give sufficient gravy of their own; and we should have the peculiar flavor of each, and hence melted butter, which is now used so extensively as the gravy for meats is unnecessarily wasted, to say nothing of its injurious effects.

For a plain roast joint, no flavor of spice or herbs should be given to the gravy; a little good rich broth, perfectly free from fat, with a little salt, and browned, if at all, with toasted bread, is the best that can be used.

The gravy of roast meat should be poured into the dish at the side—not poured over the meat.

140. *Brown Gravy.*

Take 2 lbs. of lean beef and slice it; rub the bottom of the pot with butter and put in the meat; turn it often

until well browned, then add 4 quarts of water; boil 2 hours, then add a spoonful of pepper-corns, one carrot and three onions; stew gently 4 hours longer, strain it, and when required for use, skim off the fat.

141. *To Draw or Melt Butter.*

Take a quarter pound of good butter; rub in two teaspoonsful of flour; put it into the sauce-pan with one spoonful of water and a little salt; cover it and set the sauce-pan in a large one of boiling water; shake it continually until entirely melted, and beginning to boil. If the pan containing the butter be placed on coals, the heat will reduce the butter to oil, and so spoil it. This quantity is enough for one sauce-boat.

NOTE. Always use sweet butter; if not entirely sweet the butter is lost and your labor too. If the butter is wanted for fish, cut in several soft boiled eggs.

142. *Burnt Butter, for Fish, Eggs, or Salad.*

Put 2 ozs. of butter into a frying pan; set on the fire; when of a dark brown color, put in six spoonsful of vinegar, and a little pepper and salt.

143. *Roast Meat Gravy.*

When you put your meat down to roast put about one pint of water into your dripping pan, and just before the meat is done stir up the drippings; pour them into a vessel, and put them where they will boil. Two or three teaspoonsful of flour with a little water being mixed together smoothly should be stirred into the gravy when it boils.

NOTE. The gravy for veal and lamb requires a little butter; for pork and geese, a little of the dressing and sage mixed with it. If you wish the gravy to look dark, scorch the flour you thicken with; put it in a pan, place it on a few coals, stir it continually till a dark brown. Do not burn it.

144. *Sauce for Cold Meat, Salad, or Fish.*

Two eggs boiled three minutes—with them mix a

mustard spoonful of prepared mustard, a little pepper, salt, six spoonsful of drawn butter, six of vinegar, and one of catsup.

145. *Sauce for Venison or Mutton.*

Take half a pint of the liquor the meat was boiled in, or of the drippings, mix two teaspoonsful of scorched flour with a little water, and stir it in when the gravy boils—season it with cloves, salt and pepper.

NOTE. If desired a spoonful of warm jelly may be added to the above, and just before taking from the fire a gill of wine.

146. *Tomato Sauce.*

Take 12 tomatoes, peel and slice them, pick out the seeds, add three pounds of crackers, with salt and pepper—stew about 20 minutes.

147. *Gravy Sauce.*

Beef of good quality, and roasted with care, affords the best sauce for the meat; free it from the sediment and fat; add a little salt, and if not thick enough a little browned flour, and boil it up; a little butter may be added to make veal gravy.

148. *Common Sauce.*

Drawn butter, or butter melted thick or plain butter, with a spoonful of catsup, makes a very good sauce; but additions may be multiplied according to variety of tastes.

149. *Parsley and Butter.*

Chop the parsley fine—boil it a few minutes then add it to drawn butter.

150. *Pudding Sauce.*

Stir together one tea-cup of butter, with two of brown sugar: add a glass of wine or cider; flavor it

with essence of lemon or nutmeg. If you would have it liquid, heat about three gills of water boiling hot; mix three teaspoonsful of flour with a little water, and stir it into the boiling water; stir this into the butter and sugar as soon as it boils up well.

151. *Lemon Sauce.*

Peel a lemon entirely free from the white pith; cut it into thin slices; divide these into small squares, and stir with a lump of sugar into a gill of melted butter.

NOTE. This sauce is used for boiled fowls and for puddings.

152. *Gooseberry Sauce.*

In a small quantity of water, scald half a pint of green gooseberries—do them until they are tender, but not broken; drain them on a seive. When the liquor is cold use it, or as much of it as is required to make half a pint of thick melted butter. When ready stir in the gooseberries, with a little grated ginger and lemon peel. This is the old fashioned sauce for mackerel.

153. *Egg Sauce.*

Boil three eggs hard, chop them, leaving out the whites of two; stir in plain melted butter, after it is taken from the fire.

154. *Caper Sauce.*

Put a heaping tablespoonful of capers, and a spoonful of vinegar into a sauce-boat; pour into it melted butter.

NOTE. A pickled cucumber chopped fine is a very good substitute for capers.

155. *Pan Gravy.*

Flour the bottom of your dripping pan and set it under the meat, dry. When the meat is done, take the pan and pour off all the fat from it; flour it again and set over some coals to brown, then pour boiling water into it, stir well and you will have a rich good gravy.

NOTE. It is a great improvement to the above to stir into it with an iron spoon, a teaspoonful of brown sugar, melted and burnt brown.

156. *Melted Butter—(plain.)*

In a clean sauce-pan put a half pint of cold water and a spoonful of salt; work together a tablespoonful of wheat flour and a quarter pound of very sweet butter, put into the cold water and set over the fire; stir gently, and always the same way, till the butter is melted and the flour cooked. It should not boil more than five minutes.

NOTE. It would be rich enough for a family dinner with half the quantity of butter.

157. *Melted Butter—(with Egg.)*

Is made by beating the yolks of two eggs light, and stirring it into the above smoothly, beating it well together, as soon as the sauce-pan is taken from the fire but do not put it near the fire again. The hot butter will cook the egg enough.

158. *Oyster Sauce.*

A pint of oysters taken out of their liquor, and after the liquor settles pour it off in a sauce-pan—there should be half a pint of it; add to it a teaspoonful of broken mace, some of salt, and some of pepper. Let all boil together a quarter of an hour; then put in quarter of a pound of butter, into which has been rubbed a tablespoonful of flour. Let all warm slowly, occasionally stirring it, till the butter is all melted and the flour cooked; then put in the oysters; stir till they are firm, but not hard and shrunk; five or ten minutes will do—they must not boil.

NOTE. If liked, a spoonful of cayenne, a tablespoonful of vinegar and the same of wine may be added.

159. *Apple Sauce.*

Pare, core, and slice four, five or six juicy baking apples; have your sauce-pan particularly well tinned and cleaned. Two tablespoonsful of cold water or cider will be sufficient to keep the sauce-pan from burning. Instead of putting on the lid of the sauce-pan, lay

on the longest pieces of apple-peeling to keep in the steam. Some people like the flavor of a bit of lemon peel. Some apples require long stewing, others boil very quickly, and all the time they are in the sauce-pan beyond what is really necessary only injures their flavor, therefore calculate as near as may be the time required. The fire should be clear and slow, and the sauce-pan not suffered to come too near the fire lest the fruit should burn. When done enough they will sink in the sauce-pan; then remove the peelings from the top, and beat up with a small bit of butter, a teaspoonful of fine powdered sugar, and a dust of nutmeg. This sauce is used with roast pork, goose and duck.

160. *Apple Sauce—(another.)*

Pare and core your apples, and put them into a brown jar; set them in a moderate oven for about a quarter of an hour, with a small piece of butter at the bottom of the jar; then take them out and beat them with a wooden spoon—sweeten to taste, and return them to the oven for a few minutes until enough.

161. *Rice Sauce.*

Set on a pint of milk with onion and pepper; when the milk boils add a quarter of pound of rice, well picked and washed; let it simmer till tender, then rub it through a sieve; warm with a spoonful or two of cream, an ounce of butter, a pinch of salt, and a dust of nutmeg. This is used with the same dishes as bread sauce.

162. *A Sauce for all Kinds of Fish.*

Take half a pint of rich gravy, half pint of claret or port, a wine glassful of madeira or sherry, a little nutmeg and salt, three anchovies, and two tablespoonsful of catsup—simmer together till the anchovies are dissolved, then add three ounces of butter thickened with flour, arrow root, or potatoe mucilage. When it boils add some scraped horseradish, a lobster cut in bits, a dozen or two of oysters, a few small mushrooms, and half a

vint of picked shrimps or crayfish, or such of them as are at hand. This is intended to pour over the fish, and is most suitable to boiled carp, pike, cod or haddock.

163. *Custard Sauce.*

Stir a pint of sweet cream in a double sauce-pan, if you have one at hand, if not let the vessel be set in another containing boiling water; beat the yolks of two or three eggs with a spoonful or two of cold cream, and an ounce of fine powdered sugar, pour the hot cream to them and pour several times backwards and forwards to prevent curdling; then set the inner sauce-pan over the boiling water, and stir it continually one way till it thickens, and is on the eve of boiling; serve in a china vessel with grated nutmeg, or powdered cinnamon strewed at top.

NOTE. This sauce is good for eating with rice or other plain puddings, or with fruit pies.

164. *Jelly of Pig's Feet and Ears.*

Clean and soak them well; boil them tender in a small quantity of water till every bone can be extracted; add salt, mace, and pepper, powdered fine, a little chopped parsley and sage—simmer till the herbs are scalded and pour the whole into a form.

165. *Pig's Harslets.*

Take some slices of pork, fat and lean, some liver and sweetbreads, well washed and dried, season with sage, minced onion, salt and pepper; stew it well and roast it. Serve with port wine and water, boiled gently up with some mustard.

166. *Raised Crust for Savory Pies.*

Boil an equal quantity of fresh drippings, or butter and fine lard, but not much of either, in water; mix as much flour as you will want with this while hot, and roll it out smooth; then let it remain till cold before using it

167. *Cod Pie.*

Salt the middle of a codfish one night; next day wash it, season with salt, pepper and nutmeg, and lay it in the dish; put a little butter to it, a little good broth, and cover it with crust. When done boil up a gill of cream, a spoonful of broth, a grate of nutmeg and lemon, some flour and butter, with a few oysters, and put to it.

168. *Beef Steak Pie*

Beat your steaks well, season with pepper and salt, and lay them in the dish; put in some water and mushroom catsup; line the edges with puff paste, and cover with a good crust.

169. *Veal Pie.*

Take the scrag end of a neck, season it with pepper and salt, nutmeg and mace; cover with a good crust, and when baked, pour in some strong gravy. A few slices of lean ham is a great improvement.

170. *Calf's Head Pie.*

Parboil the head—cut the meat in square pieces, and season well with salt, pepper and nutmeg; put a layer of ham at the bottom of the dish, then one of head, not laid close, and so on till the dish is full; put a little water into the dish, and cover with a thick crust; bake it in a slow oven, and when done, pour into it as much jelly as it will hold. It must not be cut till quite cold, and then use a sharp knife, and take out thin slices the whole thickness. Any strong jelly may be used, but it must be quite clean.

171. *Pork Pies.*

Raise common crust into either a round or oval form; season some lean pork well with pepper and salt; put it in layers of fat and lean mixed; fill it up and lay on the cover; cut the edge smooth, pinch it, and bake in a slow cover; no bone or water must be put in.

172. *Mutton Pies.*

Cut steaks from a tender loin of mutton, season with pepper, salt, and a little onion; put a little water at the

bottom of the dish, and paste at the edge; lay in the meat and cover with a good crust.

173. *Lamb Pie.*

Cut the breast into small pieces, remove the bones, but not the gristles; season with pepper and salt, and lay in the dish with two spoonsful of water. After baking, a small portion of jelly gravy should be put in hot, and the pie left till cold.

174. *Chicken Pie.*

Cut up two chickens, season with salt, white pepper, nutmeg and mace, in fine powder, and put thin slices of ham, hard eggs, and force meat balls in layers; put a little water in the dish and bake. When done, put in some veal gravy, seasoned with white pepper, mace, onion and herbs.

175. *Squab Pie.*

Cut apples in slices, lay them in rows with mutton chops, and sprinkle with shred onions and sugar.

176. *Duck Pie.*

Bone a fowl and a full-grown duck, wash them, and season with salt, pepper, alspice and mace; boil a calf's tongue, pickled red, till tender; put it inside the fowl, and that into the duck; lay it in the dish, fill round with force-meat, lay on the crust, and bake in a slow oven.

177. *Giblet Pie.*

Clean duck or goose giblets, and stew them with sweet herbs, an onion and black pepper, in a small quantity of water, till nearly done; if they are not sufficient to fill the dish, lay a tender beef steak at the bottom; skim the giblets, and fill the dish with the liquor they were stewed in; when it is done, put in a gill of cream.

178. *Pigeon Pie*

Cut off the wings and necks, season with pepper and salt, inside and out, and put a piece of fresh butter in the

belly of each; place a good rump steak at the bottom of the dish, lay the birds on it, place the necks, pinions, heads, gizzards, livers, &c. in the centre. Cover the whole with a good crust and bake.

179. *Potatoe Pie.*

Peel and slice potatoes, season them, and also some steaks or chops; put alternate layers, and bake.

180. *Sago Pudding.*

Boil six spoonsful of sago, with a little cinnamon, nutmeg, and lemon peel, in a quart of new milk; sweeten to the taste, put in five eggs, and bake slowly, with an edging of paste round the dish.

181. *Bread and Butter Pudding.*

Line the edge of a small dish with paste, put thin slices of bread and butter at the bottom of it, and a layer of currants on them, and so fill the dish—then pour over some new milk, mixed with three eggs and a spoonful of rosewater; let it stand to soak for a couple of hours, and then bake.

182. *Bread Pudding.*

Pour boiling water over some thin slices of bread, and cover close; when well soaked, beat it fine; add three eggs well beaten, a little nutmeg, and sugar to taste. Put it into a bason, tie it over with a flowered cloth, and put it into boiling water. Serve with melted butter.

183. *Bread Pudding—(another.)*

One pound soft bread or biscuit, soaked in one quart of milk run through a sieve or cullender, add seven eggs, three-quarters of a pound of sugar, quarter pound of butter, nutmeg, cinnamon, a gill of rosewater, one pound of raisins, half pint of milk; bake three-quarters of an hour—middling hot oven.

184. *Baked Apple Pudding.*

Peel and core some apples, and boil them tender with the rind of a lemon; pound them in a mortar with bread

crumbs, the yolks of five and whites of three eggs, the juice of half a lemon, a quarter of a pound of butter warmed, and sugar to taste; beat all together and lay it in a dish lined with paste to turn out.

185. *Apple Pudding.*

Pare and stew three pints of apples, mash them and add 4 eggs, quarter of a pound of butter, sugar and nutmeg, or grated lemon. Bake it on short crust.

186. *Boiled Rice Pudding*

Wash some rice, tie it closely in a cloth, and boil for an hour or two. Serve with butter melted with milk and sweetened.

187. *Baked Rice Pudding.*

Put half a pound of rice into a deep dish, with half a gallon of milk, quarter pound of sugar, half that quantity of butter, and a little powdered alspice. Bake slowly.

188. *Light Puffs.*

Melt three ounces of butter in a pint of cream; when nearly cold, add two ounces of flour, the same of sugar, two whites and four yolks of eggs, and a little rose-water; bake half an hour in small cups, buttered, and serve the moment they are done with white wine and sugar.

189. *Transparent Pudding.*

Beat up eight eggs, put them in a stew pan with some grated nutmeg, half pound of butter, and the same quantity of pounded sugar, and stir it till it thickens; then let it cool; put a rich edging round the dish, pour in the pudding, and bake it in a moderate oven.

190. *Batter Pudding.*

Rub smooth three spoonsful of fine flour into a pint of milk; simmer till it thickens, and stir in two ounces of butter; set it to cool; add the yolk of three eggs, and put it into a butter bason; tie it tight; plunge it bottom

upwards into boiling water, and boil one and a half hours.

191 *Batter Pudding with Meat.*

Mix eggs, flour and milk, pour a little into the bottom of a pudding-dish; put any meat well seasoned, and some chopped onion into it; pour the remainder of the batter over it, and bake in a slow oven.

192. *Potatoe Pudding.*

Boil them to a mash, rub through a cullender, and moisten with milk and two eggs, and lay in the meat as directed in the former receipt.

193. *Beef Steak Pudding.*

Lay a suet paste in the basin, and put in the steaks, well seasoned; cover the basin with a crust, and pinch the edges to keep the gravy in; cover with a floured cloth, and let the pudding boil slowly for four hours

194. *Mutton Pudding.*

Cut slices off a leg that has been underdone, and put them into a bason lined with a light suet crust. Season with salt, pepper, onion—pounded fine.

195. *Suet Pudding.*

Mix a pound of suet, shred with a pound and a quarter of flour, salt, milk, and two eggs, and boil four hours.

196. *Plum Pudding.*

Take a pound of currants, one shred of suet, one of flour, a little lemon and spice, a glass of brandy, an egg beat up in milk; tie it in a floured cloth, allowing room to swell; boil four hours, and serve with sweet sauce.

197. *Custard Pudding.*

Mix a pint of milk, the yolks of five eggs, and a tea-cup of flour and some pounded cinnamon; pour it into

buttered bason, and tie a floured cloth over it; put it into boiling water and in half an hour it will be done.

198. *Curd Puddings.*

Strain the curd of two quarts of milk, rub it through a sieve, and mix with two spoonsful of cream, quarter of a pound of butter, some bread crumbs, nutmeg, and a little sugar; butter some small patty-pans, fill them three parts full, and bake with care.

199. *Yeast Dumplings.*

Make a light dough with yeast and milk; lay it before the fire to rise; make it into moderate sized dumplings, and throw them into boiling water; in about 20 minutes stick a fork into one, and if it comes out clean they are done; eat with sugar, butter, salt or meat.

200. *Pancakes.*

Mix a light batter with milk, flour, and eggs; fry in a small pan with hot lard—serve with lemon and sugar.

201. *Irish Pancakes.*

Beat the whites of four and the yolks of eight eggs strain them into a pint of warm cream, and put sufficient sugar and nutmeg; then set a quarter of a pound of butter over the fire, stir it, and as it warms, pour it to the cream; add half a pint of flour, and fry the pancakes very thin in butter.

202. *Fritters.*

Pour a small quantity of either the above batters into a pan; lay some apples, or other fruit, in very thin slices on it, and fry sufficiently. Fruit, or sweetmeats of any kind may be used for variety.

203. *Buckwheat Pancakes.*

Mix six ounces of buckwheat flour, with a half pint of warm milk, and two spoonsful of yeast; put it before the fire to rise for an hour, then mix as much milk, and eight eggs beaten, as will make the batter sufficiently thin for pancakes, and fry as directed for them.

204. *Pastry.*

Pastry is better when rolled on marble, or a very large slate, and made early in the morning, and preserved from the air until it is to be used. A board will answer to roll it on when marble or slate cannot be obtained. Never leave any part adhering to the dish or board used in making.

Fruits preserved with their full quantity of sugar need no baking. The crust should be in a tin shape, and the fruit afterwards added.

205. *Short Crust.*

Rub together one pound of flour and twelve ounces of lard or butter, and mix into a stiff paste, with as little water as possible; roll it thin and bake it in a moderate oven.

206. *Raised Crust for Sweets.*

Put a quarter of a pound of butter into a sauce-pan, with water, and when it boils, pour it into sufficient flour to make a stiff paste; knead and beat it till smooth, and put it under a pan to cool.

207. *Rice Paste for Tarts, &c*

Boil 4 ounces of ground rice in the smallest quantity of water, strain it, dry and mix it well, with one egg and half an ounce of butter.

208. *Potatoc Paste.*

Pound boiled potatoes very fine, mix with an egg, and before it gets cold flour the board to prevent its sticking, and roll it to the thickness wanted. It must be used before it gets cold, or it may crack.

209. *Apple Pie.*

Pare and core the fruit, and boil the cores, and peel with a piece of bruised cinnamon in a little water, till it has acquired the flavor. Meanwhile put a paste round

the edge of the dish; lay in one layer of apples, and sprinkle half the sugar, and some lemon peel or cloves, and then put in the rest of the apples and sugar, and the liquor. If it be eaten hot, put in a little butter when it is cut.

210. *Apple Pie—(another.)*

Pare and core the fruit as above; fill the dish half full of apples; sweeten with sugar, dust some cinnamon and grated or chipped peel of lemon; then fill heaping full with apples, putting more sugar and seasoning over all; cover with either puff paste or cream paste.

NOTE. The quantity of sugar must depend on the nature of the apples, whether sweet or tart. If lemon, which is to be preferred, or apples, is not at hand, rose-water and nutmeg may be substituted in its place.

211. *Apple Pies—Of Stewed Apples.*

After paring the apples to prevent their turning dark, throw them into cold water. Cut them up, put them in a sauce-pan, and sprinkle on them some sugar; season with cinnamon and orange peel to the taste. A few spoonsful of cold water may be added. Let the sauce-pan be covered closely, and stew slowly till all the apple is tender. If the sauce-pan is covered tight, the top will be cooked by the steam as soon as the bottom. Turn out in a dish to cool, then season to the taste, being careful not to break the apple.

Then line your plates with such paste as you may choose—fill with the apple; lay a strip of paste round the edge to make it double; then cover with a thin crust. Bake in a very quick oven, and let the paste be perfectly cooked at the bottom.

NOTE. If you touch the paste with water where the different layers of paste join, it will make it stick together, and prevent the juice running out. If you butter the plates both outside and in they will not be cracked or injured by the heat.

212. *Fruit Pies.*

Fruit pies may be made of almost any description by

the criterion furnished in either of the above receipts for apple pies.

NOTE. Peach pies may be seasoned by the meats of their own pits, and stewed with the fruit. Blackberries are best when flavored with cinnamon. Strawberries, raspberries and green gooseberries, require nothing but white sugar. Cherry pie is the better when made with raspberries or currants, or both. Currant pie may be made with or without raspberries.

213. *Light Paste for Tarts.*

Beat the white of an egg to a strong froth, and mix it with as much water as will make three-quarters of a pound of flour into a very stiff paste, and roll it very thin; then spread the third part of half a pound of butter on it, and roll it up tight; roll it out again, put the same proportion of butter, and so proceed till it is used.

214. *Icing for Tarts.*

Wash the tarts with the white of an egg well beat, and sift white sugar over them.

215. *Rhubarb Tarts.*

Cut the stalks into short lengths, take off the thin skin and simmer till tender; put an edging of paste round the dish, put in the rhubarb, some of the liquor and some sugar—cover with crust and bake.

216. *Mince Meat.*

Take two pounds of scraped beef, free from skin and strings; three pounds of chopped apples, four pounds of shied suet. To these add dried currants, the peel and juice of two lemons, some nutmeg, cider, or a pint of sweet wine, an ounce of cloves and mace, in fine powder—mix these well, press them into a deep pan, and keep it covered in a cool dry place.

217. *Prune Tart.*

Scald and stone prunes, put them with the kernels and some sugar, into cranberry juice; simmer, and when cold, make a tart of the sweetmeat.

218. *Fried Patties.*

Mince six oysters and a piece of cold veal; mix with bread crumbs, lemon peel, nutmeg, salt, pepper, and the liquor of the oysters—warm all, but do not let them boil; roll a good puff paste thin, cut it in square or round pieces and put some of the above, when cold, between two of them; twist the edges to keep in the gravy, and fry them a fine brown.

219. *Veal Patties.*

Mince some underdone veal with a little ham, parsley and lemon peel; add salt, nutmeg, cream and gravy sufficient to moisten the meat, but do not warm it till the patties are baked.

220. *Apple Puffs.*

Pare and bake some apples—when cold, mix the pulp with finely shred lemon peel and sugar, and bake them in their paste.

221. *Custards.*

Boil three pints of new milk with lemon peel and cinnamon; rub smooth a large spoonful of rice flour into a cup of cold milk, and mix it with two well beaten yolks of egg; mix a basin of the boiling milk with the cold, and pour that to the boiling; stir it one way till it is just going to boil up, then pour it into a pan, stir it some time, and add a glass of peach water.

222. *Custard—(another, richer.)*

Boil a pint of milk with cinnamon and lemon peel mix a pint of cream with the yolks of five eggs, well beaten, and pour the boiling milk sweetened into it, stirring it well, then simmer the custard till a proper thickness.

223. *Custard—(another, baked.)*

Boil one pint of cream and half a pint of milk, with lemon peel, mace and cinnamon; when cold mix the

yolk of three eggs, sweeten, and make your paste or cups nearly full—bake them ten minutes.

224. *Custard Pie.*

A quart of milk, half a dozen peach leaves, or the rind of a lemon mixed and boiled long enough to flavor the milk, then strain, and set it where it will boil. A tablespoonful of flour, two tablespoosful of milk may then be stirred into the boiling water till smoothly mixed; let it boil a minute, stirring it constantly; take it from the fire, and when cool, mix in three beaten eggs. Sweeten to the taste—turn it into deep pie plates and bake in a quick oven.

225. *Pumpkin Pie.*

Cut the pumpkins in two equal parts, scrape out the shreds and seeds, and cut into small strips. Stew them over a moderate fire in water sufficient to keep them from burning at the bottom of the pot. When the pumpkin is stewed soft turn off the water; let it steam over a slow fire, taking care that it does not burn, and in 15 minutes take it from the fire, and when cool, strain it through a sieve. Milk and eggs may be added, if desired, to make them very rich to any extent. The thicker the pies are of pumpkin the less will be the number of eggs required for them. An egg with a little molasses and milk to a quart of pumpkin is a good rule. It is best to sweeten with sugar, and a very little molasses—beat the sugar and eggs together. As for the spice, ginger, grated lemon rind or nutmeg is good. To bake them, requires a very hot oven.

226. *Potatoe Pie.*

Carolina or Irish potatoes boiled until soft, then skir and strain them; one quart of milk, three spoonsful of melted butter, four beaten eggs, may be added to a quarter pound of potatoes. Sugar and nutmeg may be added to the taste.

227. *Peach Pie.*

Mellow juicy peaches must be taker and washed, then

put into a deep pie plate lined with pie crust; on each layer of peaches sprinkle a thick layer of sugar; after putting in a tablespoonful of water, sprinkle a little flour over the top; cover with a thick crust, and bake from 50 to 60 minutes.

228. *Apple Dumplings.*

Pare and core six large baking apples—inclose in a piece of puff paste; boil in nets of linen for an hour; sugar may be added to the taste before sewing.

229. *Plain Rice Pudding.*

One pint of rice well cleaned, by picking and washing in cold water, boiled until quite soft. Two ounces of butter, four tablespoonsful of sugar and a quart of milk, may be mixed with the rice, boiled together, and then partially cooled; five eggs may then be beaten until they are quite light and stirred into the rice. Bake an hour.

230. *Rice Milk.*

Prepare the rice as above, then boil well with half a pound of picked raisins—after pouring off the water, mix a quart of rich milk to a pint of rice; boil five minutes, then mix four tablespoonsful of brown sugar, beat two eggs until they are light, and pour them into the milk, stirring it all the time; let all boil together about five minutes. Be sure and stir well, or the eggs will form a custard on the surface, which is not desirable.

NOTE. This dish is simple, quickly made, and excellent.

231. *Mince Pies.*

Fresh tongue must be used; trim off the root, rub it with salt, and wash it well. It may lay for 12 hours in salt, mixed with brown sugar and powdered cloves; then boil two hours or more; skim, and mince fine; add beef suet, raisins, dried currants well washed, pared apples chopped fine, and sugar in such quantities as suits the taste; lemon peel and the juice of one or two lemons, a pint of sweet cider, a tablespoonful of salt, a teaspoonful

of powdered cloves, and one nutmeg grated to a pound of meat—mix well. It will keep for months if kept closely covered in a jar. To keep from moulding wet a piece of paper in brandy and cover; use tin pans or plates with pie crust, and fill with the meat; lay thin slices of citron over the top, then cover with paste; lay a piece of crust around the edge, between the bottom and top crust, to thicken it; make a small slit in the centre of the pie to let out the steam.

NOTE. To prevent the pie from baking, daub with water, where the different layers of paste join, so that they may stick together.

232. *Doughnuts.*

Rub a quarter of a pound of butter into a pound of flour, add five ounces of sugar, two eggs, a spoonful of yeast, and sufficient milk to make into a stiff paste; when it has risen, roll it out, cut it into shapes, and boil them in lard till they are nicely browned.

233. *Blanc Mange.*

One ounce of isinglass, one pint water, a little cinnamon—mix, boil till the isinglass is melted, add to it three-quarters of a pint of cream, two ounces of sweet almonds, a bit of lemon peel, sugar sufficient; stir it over the fire, let it boil, strain and let it cool; squeeze in the juice of a lemon, and put into moulds. Garnish to your fancy.

234. *Floating Island.*

A pint of thick cream sweetened with fine sugar, spiced with a little lemon peel, and a gill of white wine; beat well till you have raised a good froth; take a French roll, sliced thin, and lay it over the cream as lightly as possible, which has been previously put in a thick cream or china dish; then a layer of clear calf's feet jelly or currant jelly; then whip your cream and lay in the froth as high as you can, and what remains pour into the bottom of the dish. Garnish the rim with sweetmeats.

235. *Calf's Feet Jelly.*

Boil the feet 6, 7 or 8 hours—four feet will require

four quarts of water, which in boiling should be reduced full half. Strain the liquor, and set by till next day; when perfectly cold and stiff, clear off from the top every particle of fat, which will be useful for pastry. Turn it out of the vessel, and cut from the bottom every particle of sediment. Set it on in a very clean vessel over a clear but not fierce fire, with a bottle of wine, half pound of lump sugar, the thin rind of two lemons, the juice of six, the whites of six eggs well beaten; stir or whisk this well till the jelly is melted, but afterwards do not disturb it. Let it boil gently for twenty minutes. Take off the sauce-pan and keep it covered close for half an hour. Have a very clean flannel (swan skin) jelly bag; dip it in boiling water, and wring it very dry. Put an egg shell in the point, and pour the jelly steadily through. If not clear and bright the first time, it must be poured again and again till it is. Put into forms for turning out.

236. *Currant Jelly.*

Have your currants gathered on a dry day; pick them and set them over the fire in your preserving pan to draw out the juice; strain through your jelly bag, and to every pint of juice allow one pound of loaf sugar, which is better put in in rather large pieces. Let it boil gently half an hour. Be particular to remove the scum till none rises. When cold put some white paper, cut to the size of your pots, previously dipped in brandy.

237. *Sago Jelly.*

In a gallon of water boil for three hours four ounces of sago, and two ounces each of tapioca, rice, and pearl barley, and a stick or two of cinnamon. Strain, and warm a cupful with any agreeable addition.

238. *Cheese Cakes.*

Take the curd of eight quarts of new milk; rub the curd in a coarse cloth till quite free from whey; then work into it three-quarters of a pound of butter, three biscuits, and an equal quantity of bread crumbs, a

little salt, and such spices as you choose finely powdered; beat ten eggs (half the whites) with three-quarters of a pound of fine loaf sugar, a pint of rich cream. Having well mixed all these ingredients, rub them with the hand through a coarse hair sieve—then add a pound of currants washed and dried, and an ounce of candied citron cut as small as possible. Line tin patty pans with rich puff paste, put in the meat, and either entirely cover with paste, or put only bars or leaves. They will take about twenty minutes to bake in rather a quick oven.

239. *Cheese Cakes without Curd.*

May be made in almost every variety by substituting biscuit and bread crumbs; equal parts of each soaked in white wine, making in the whole as much as would have been used for curd.

240. *Curds and Cream.*

Turn the milk as for cheese cakes. When the curd becomes firm drop it into a mould with holes, and as the whey runs off and the curd sinks, keep adding more. Those who like the curd hardened, press it down; but it is in general preferred light, and without pressing or breaking the curd. Let it remain in the mould about two hours—then turn it out into a glass dish or bowl, and pour round, or serve in another vessel, plain or whipped cream, sugar, white wine and lemon for eating with it, or raspberry jam or currant jelly.

241. *Cream for Eating with Fruit Pies.*

This may be prepared in various ways. Simmer a pint of new milk with cinnamon, lemon peel, beat up the yolks of three eggs with half a spoonful of flour, and one or two of cream; gradually add the boiling milk to this. Set it over the fire and whisk it till it is of the consistence of thick cream. As it cools, add a table spoonful of rose, or orange flower water. When quite cold remove the top of a fruit pie, pour in the cream, and return the cover either whole or cut in quarters.

NOTE 1. If eggs are scarce one whole egg beaten

up with a spoonful of rice-flour or arrow root, will answer for thickening.

NOTE 2. Richer creams may be prepared with an equal quantity of cream and milk, flavored as above.

NOTE 3. Some people prefer cream unboiled, and merely whisk it to a froth, with sugar, lemon juice, and white wine.

NOTE 4. The various names—almond, or sack, or lemon cream, &c.,—are given according to the article by which the cream is principally flavored.

NOTE 5. The rule is as follows: Allow a quarter of a pound of sweet almonds to a quart of cream, two glasses of brandy, or a glass and a half of wine with half a glass of brandy, to one quart of cream—or the juice of three lemons or oranges, and as much of the rind grated off with loaf sugar as will give it an agreeable flavor. For ginger cream—four ounces of preserved ginger, two spoonful of ginger syrup, four yolks of eggs; simmer the cream and eggs and whisk together till cold.

242. *Pine Apple Cream.*

If fresh the fruit must be grated. A pound of fruit. Dissolve in the juice of two or three lemons, over a clear fire, half a pound of sugar; mix it with the pulped fruit, and with a pint and a half of cream; rub through a hair sieve and whisk. Two or three thin slices of pine should be cut in small squares and divided, a few into each glass of cream. If made of preserved fruit—for the same quantity of cream take six ounces of preserved fruit, a large spoonful of pine apple syrup, a quarter of a pound of clarified sugar, and the juice of two or three lemons. Three or four slices of preserved pine cut in small squares as above.

NOTE 1. Syrup or clarified sugar—perfectly free from scum.

NOTE 2. Candied sugar rises in the pan like pearls or quicksilver, and may be drawn out like thread.

243. *Snow Cream.*

Boil one quart of cream with a bit of lemon peel or

cinnamon, the whites of three eggs well beaten, with two ounces of loaf sugar. Mix well with the cream, and whisk till nearly cold, then add a teaspoonful of wine, continue to whisk it till quite cold. It is generally served in a cut glass dish.

244. *Birch's Receipt for Mock Cream.*

Mix half a spoonful of flour with a pint of new milk; let it simmer five minutes to take off the newness of the flour; then beat up the yolk of one egg, stir it into the milk while boiling, and run it through a fine sieve. A teaspoonful of arrow root would do better than flour.

245. *Ice Cream.*

Put half a pound of loaf sugar to each quart of rich sweet cream. It may be flavored by the water in which a vanilla bean has been steeped, or the peel of one lemon for each quart of cream, soaked and grated in the juice of the lemons, then strained through a piece of wet muslin into the cream.

If you want pine apple ice cream you must peel the the pine apples, strain and squeeze the juice through a piece of coarse muslin, that has been previously wet. After you have got the pulp as dry as you can, pound it in a mortar with a cup of water and strain it again. One large pine apple should flavor two quarts of cream. The juice from raspberries and strawberries flavors and colors the cream very beautifully. A few drops of alcohol, in which cochineal is dissolved, improves the color.

246. *To Freeze the Cream.*

Put it into the freezer placed in a tub, that has a hole in the bottom to let out the water, and surround the freezer on all sides with ice, broken finely and mixed with coarse salt. Beat the cream hard for half an hour. The more it is stirred while freezing the better the ice will be. When it is all too much frozen to be stirred, pack the ice and salt close round it, cover it close, put some lumps of ice on the top of it, cover up with a blan-

ket, and let it stand in a cool place. If you desire you can transfer it to a mould, surround it with salt and ice, and then freeze it over again.

NOTE. A common tin kettle set in a tub, makes a very good ice cream machine to freeze a small quantity of cream, if you have plenty of ice.

247. *Some General Directions for Making Bread.*

To make good bread much depends upon judgment and experience. Hence it is more difficult to give rules for making bread than for almost any thing else.

In summer, bread should be mixed with cold water; during a chilly, damp spell, the water should be slightly warm; in severe cold weather, it should be mixed quite warm, and set in a warm place during the night. If your yeast is new and lively, a small quantity will make the bread rise; if it be old and heavy, it will take more.

248. *The Proportions in Brown Bread.*

Six quarts of meal will make two good sized loaves of brown bread. Some prefer it half indian and half rye meal—others one-third indian and two-thirds rye. The meal should be sifted separately. Sprinkle a little salt upon your indian, and wet it thoroughly with scalding water. Stir it up while you are scalding it. Be sure and have hot water enough, for indian meal absorbs a great deal of water. When it is cold pour in your rye; add two gills of lively yeast, and mix it with water as stiff as you can knead it. Let it stand an hour and a half in a cool place in summer—on the hearth in winter. It should be put into a very hot oven and baked three or four hours. It is all the better for remaining in the oven over night.

NOTE. Many mix their brown bread over night, but there is no need of it; and it is more likely to sour, particularly in summer. If you do mix it the night before you bake it, you must not put in more than half the yeast mentioned above, unless the weather is intensely cold.

249. *Flour Bread.*

Should have a sponge set the night before. The

sponge should be soft enough to pour—mixed with water, warm or cold, according to the temperature of the weather. One gill of lively yeast is enough to put in a sponge for two loaves. The warmth of the place in which the sponge is set should be determined by the coldness of the weather.

250. *Some Signs Worth Knowing.*

If your sponge looks frothy in the morning, it is a sign your bread will be good; if it does not, stir in a little more emptyings; if it rises too much, taste of it, to see if it has any acid taste; if so, put in a teaspoonful of pearlash when you mould in your flour—be sure the pearlash is well dissolved in water,—if there are little lumps your bread will be full of bitter spots.

251. *Some General Directions.*

About an hour before your oven is ready, stir in flour into your sponge till it is stiff enough to lay on a well floured board or table. Knead it up pretty stiff, and put it into well greased pans, and let it stand in a cool or warm place, according to the weather. If the oven is ready put in fifteen or twenty minutes after the dough begins to rise up and crack; if the oven is not ready, move the pans to a cooler spot, to prevent the dough from becoming sour by too much rising.

252. *When the Bread is done.*

Common sized loaves will bake in three-quarters of an hour. If they slip easily in the pans it is a sign they are done.

253. *The Practice and Choice of some People, &c.*

Some people do not set a soft sponge for flour bread; they knead it up already to put in the pans the night before, and leave it to rise. White bread and pies should not be set in the oven until the brown bread and beans have been in half an hour. If the oven be too hot it will bind the crust so suddenly that the bread

cannot rise—if it be too cold, the bread will fall. Some people like one-third indian in their flour, others like one-third rye, and some think the nicest of all bread is one-third indian, one-third rye, and one-third wheat, made according to the directions of flour bread.

NOTE. Always remember that when indian is used it must be salted and scalded before the other meal is put in. A mixture of other grains is economical when flour is high.

254. *Heating Ovens.*

Must be regulated by experience and observation. There is a difference in wood in giving out heat—there is a great difference in the construction of ovens, and when an oven is extremely cold, either on account of weather or want of use, it must be heated more. Economical people heat ovens with pine wood, faggots, brush, and such light stuff. If you have none but hard wood, you must remember that it makes very hot coals, and therefore less of it will answer. A smart fire for an hour and a half is a general rule for common sized family ovens, provided brown bread and beans are to be baked; an hour is long enough for flour bread and pies; pumpkin pies can bear more. If you are afraid that your oven is too hot, throw in a little flour and shut it up for a minute. If it scorches black immediately, the heat is too furious; if it merely browns, it is right. Some people wet an old broom two or three times, and turn it round near the top of the oven till it dries; this prevents pies and cakes from scorching on the top. When you go in a new house, heat your oven two or three times, to get it seasoned before you use it. After the wood is burned rake the coals over the bottom of the oven, and let them lay a few minutes.

255. *Some Directions pertaining to Yeast.*

Those who make their own bread should make yeast too. One handful of hops, with two or three handful of malt and rye bran should be boiled 15 or 20 minutes in two quarts of water; these strained, hang on to boil again, and thickened with half a pint of rye and water

stirred up quite thick, and a little molasses; boil it a minute or two, and then take it off to cool. When just about lukewarm, put in a cupful of good lively yeast, and set it in a cool place in summer, and warm place in winter. If it is too warm when you put in the old yeast, all the spirit will be killed.

256. *The quantity of Yeast and how Preserved.*

In summer yeast sours easily, therefore make but little at a time. Bottle it when it gets well a working; it keeps better when the air is corked out. If you find it acid, but still spirited, put a little pearlash into it, as you use it; but by no means put it into your bread unless it foam up brightly and lively as soon as the pearlash mixes with it. Never keep yeast in tin—it destroys its life.

257. *An Easy Method of making Yeast.*

Stir rye and cold water till you make a stiff thickening—then pour in boiling water, and stir it all the time till you make it as thin as the yeast you buy; three or four tablespoonsful heaping full are enough for a quart of water. When it gets about cold put in half a pint of lively yeast. When it works well bottle it; but if very lively, do not cork your bottles very tight, for fear they will burst. Always think to make new yeast before the old is gone, so that you may have some to work with. Always wash and scour your bottle well after it has contained sour yeast. Beware of freezing yeast.

258. *Milk Yeast.*

Is made quicker than any other. A pint of new milk with a teaspoonful of salt, and a large spoonful of flour stirred in, set by the fire to keep lukewarm, will make yeast fit for use in an hour.

NOTE. Twice the quantity of common yeast is necessary, and unless used soon is good for nothing. Bread made of this yeast dries sooner. It is convenient in summer when one wants to make biscuits suddenly.

259. *Leaven that will keep a long time.*

Three ounces of hops in a pail of water boiled down

to a quart—strain it, and stir in a quart of rye meal while boiling hot. Cool it, and add half a pint of good yeast; after it has risen a few hours, thicken it with indian meal stiff enough to roll out upon a board; then put it in the sun and air a few days to dry. A piece of this cake two inches square, dissolved in warm water, and thickened with a little flour, will make a large loaf of bread.

260. *Home-made Bread.*

Home-made bread is greatly preferable to that which is bought, on the score of wholesomeness. It is not so white as baker's bread; but the whiteness of the latter they say is produced by alum, which to a delicate stomach is more or less pernicious. Besides, however good alum or pearlash may be as a medicine, persons do not want medicine mixed up with their bread.

261. *Pure Bread.*

Is the thing desired, and into that no ingredient must be admitted but flour, water, salt, and yeast—if desired, milk may be employed for mixing instead of water, and if bread is to be eaten new it makes it light and pleasant. Most fancy bread is mixed with milk, but it very soon becomes dry and harsh; for that reason we should by no means recommend it for common consumption.

262. *Fresh Yeast.*

Is always to be employed—if stale, the dough will not rise. The yeast of table-beer is preferable to that of strong ale which is apt to be bitter.

263. *Leaven.*

Is sometimes employed instead of yeast—leaven is stale or sour dough. Those who use it keep a pound or more from every baking, which is kept in a wooden bowl covered with flour; when it is to be used it is mixed with warm water, and put in a kneading-trough with an eighth part of the flour intended to be used; cover it up with a woollen cloth, and let it remain all night in a warm place. Next morning it will have risen and be fit to mix with the whole quantity of flour.

264. *Bread made of Leaven.*

Is more light and easy of digestion than that which is made of yeast, and many people prefer it for the food of young children; but it is not so pleasant to the taste, and is not so commonly used.

265. *Flour for Bread.*

Should be kept in a very dry place. If it becomes damp it is exceedingly unwholesome, whether for bread or pastry. Flour should stand at least a month after grinding before use—by this means it will be greatly improved.

266. *Ovens for Bread.*

The best form for ovens is round, not long, and there is a greater equality in the heat. The roof should be from twenty inches to two feet high; the mouth small, not much larger than to admit the largest loaf, with an iron door to shut close. Bread baked on tins is much more smooth and neat, but the crust has not that pleasant crispness which it has when baked on the bricks of an oven.

267. *How often best to Bake.*

Most families who make their own bread bake once a week—twice is best. Home-made bread will keep moist considerably longer than bakers' bread; but all bread, if kept eight or nine days, loses its nutritious properties.

268. *Ripe Bread.*

Bread made of . . . flour, when taken out of the oven, is unprepared for the stomach. It should go through a change, or ripen, before it is eaten. Young persons, or persons in the enjoyment of vigorous health, may eat bread immediately after it is baked, without any sensible injury from it; but weakly and aged persons cannot; and none can eat such without doing injury to the digestive organs. Bread, after being baked, goes through a change, similar to the change in newly brewed beer, or newly churned butter-milk—neither being healthy till after the change

269. *Chemical Change in Bread while Ripening.*

During the change in bread it sends off a large portion of carbon, or unhealthy gas, and imbibes a large portion of oxygen or healthy gas. Bread has, according to the computation of chemists and physicians, one-fifth more nutriment in it when ripe, than when just out of the oven. It not only has more nutriment, but imparts a much greater degree of cheerfulness. He that eats ripe bread will have a much greater flow of animal spirits, than he would were he to eat unripe bread.

270. *How to let Bread Ripen.*

Bread as before observed, discharges carbon and imbibes oxygen. One thing in connection with this should be particularly noticed by housewives. It is to let the bread ripen, where it can inhale the oxygen in a pure state. Bread will always taste of the air that surrounds it while ripening. Hence it should ripen where the air is pure. It should never ripen in a cellar, nor in a close cupboard, nor in a bedroom. The various vapors of a cellar or cupboard never should enter into and form a part of the bread we eat. Bread should be well baked, light, and ripened before eaten.

271. *Stale Bread Renewed.*

Bread that is several days old may be renewed, so as to have all the freshness and lightness of new bread, by simply putting it into a common steamer over the fire, and steaming it half or three-quarters of an hour. The vessel under the steamer containing the water should not be more than half full, otherwise the water may boil up into the same, and wet the bread. After the bread is thus steamed it should be taken out of the steam, and wrapped loosely in a cloth to dry and cool, and remain so a short time, when it will be ready for use. It will then be like cold new bread.

272. *To Make Yeast.*

Thicken two quarts of water with fine flour, about three spoonsful, boil half an hour; sweeten with near

half a pound of brown sugar; when nearly cold, put into it four spoonsful of fresh yeast in a jug, shake it well together, and let it stand one day to ferment near the fire, without being covered. There will be a thin liquor on the top, which must be poured off; shake the remainder and cork it up for use. Take always four spoonsful of the old to ferment the next quantity, keeping it always in succession.

273. *Substitute for Yeast.*

Take wheat flour 8 pounds, and water to make it of the consistence of cream. Boil for an hour, then add sugar, one pound; yeast, one gill. Ferment.

274. *To Improve Bad Yeast.*

Add a little flour and sugar, and let them work together for a short time.

275. *To Preserve Yeast.*

1. Take a close canvass bag, fill it with yeast, then press out the water, and make it into cakes. Bread made with yeast made in this manner is excellent. The mode of using it, is to dilate it with warm water, to which a little sugar and flour may be added.

2. Whisk the yeast to a froth, and then with a paint brush lay it on writing paper, every time it dries, until a cake is formed, then divide it into squares with a knife.

276. *To Remove the Acidity from Yeast.*

Take yeast and add sub-carbonate of magnesia to it, until the acid is neutralized.

277. *Yeast of Cream of Tartar and Saleratus.*

Two teaspoonsful of cream of tartar to one quart of flour must be mixed, then dissolve one teaspoonful of saleratus in warm water, and mix it with the flour, adding water enough to make it soft dough. As soon as thoroughly kneaded, place it in your oven until

sufficiently baked, and the bread will be tender and of the nicest kind.

NOTE. Biscuit may be made in the same way by adding a little shortening.

278. *Tartaric Acid Yeast*

May be used in all cases for cooking, where an acid is wanting. In connection with saleratus or soda, it makes a very quick and convenient yeast for raising bread, and biscuit of all kinds—for crust and for griddle cakes. Use half as much acid as of alkali. For dough, put in two teaspoonsful of saleratus to one quart of flour. Then mould it up, putting in a teaspoonful of acid. Let it stand 15 or 20 minutes and bake. For griddle cakes also stir in twice the proportions of saleratus to that of acid, putting in the acid last, and immediately before cooking.

279. *To Make Yeast—(another.)*

Take as many hops as you can grasp in one hand, put into three quarts of water—to this add six or eight Irish potatoes, or the same weight of sweet potatoes, then boil until the potatoes are cooked and the hops sink to the bottom. Then take out the potatoes, skin them, mash fine in a mortar, then take the water in which the hops are boiled, after straining, and pour it on to the mashed potatoes; let stand till a little cooled, then add one tablespoonful of salt, ditto of molasses or brown sugar, and as much wheat flour as will make all as thick as cream; stir in half a cupful of yeast and let it stand quietly in a warm place till a froth rises on the top, then bottle and cork tight, or put in one large jug or a close covered pot. Keep in a cool place, and stir it well when you take out to use. One large cupful will raise four good sized loaves.

280. *To Make Bread.*

Take two quarts of water blood-warm, and stir into it with an iron spoon as much sifted flour as will make a

thick batter; add half a pint of yeast, and a tablaspoonful of salt. Let it stand in a warm place all night. Early the next morning stir in as much more sifted flour as you can get in with the spoon. At ten o'clock work in with your hands as much flour as it will take up; put the bread on a pasteboard; cut into four; knead, and work each loaf a long time, making it as dry with flour as possible—put in buttered pans, and set in a warm place to rise—in a couple of hours it will be light enough to bake. Let it stand one hour in a well-heated oven.

NOTE. The above is the French mode of making bread, and it never fails unless the flour is poor or the yeast too old. Buy good flour, have good yeast, and follow the above, and you will have good bread.

281. *To make Dyspepsia Bread.*

The American Farmer publishes the following receipt for making bread, which has proved highly satisfactory to persons afflicted with dyspepsia, viz: three quarts unbolted wheat meal, one quart soft water, warm, but not hot; one gill of fresh yeast; one gill of molasses, or not, as may suit the taste; one teaspoonful of salærat. This will make two loaves, and should remain in the oven at least one hour, and when taken out, placed where they will cool gradually.

NOTE. Dyspepsia Crackers can be made with unbolted flour, water and salærat.

282. *To make Rice Bread.*

Boil a pint of rice soft—add a pint of leaven; then, three quarts of flour; put it to rise in a tin earthen vessel until it has risen sufficiently; divide it into three parts; then bake it as other bread, and you will have three large loaves.

283. *French Rolls.*

Mix a pint and a half of milk, a gill of small beer yeast, two quarts of the best flour, two ounces of fresh butter rubbed in, one egg well beaten, a heaping teaspoonful of salt—set it before the fire to rise; knead it well with the hands and make it into the shape of rolls. Bake in a quick oven and serve while hot.

284. *Indian Loaf.*

One quart of milk, teaspoonful of salt, mix, and put over the fire; when it boils stir into it slowly corn-flour, wet with cold milk enough to make it a very stiff mush; take it up and put it in a pan to cool; when about blood warm stir in three eggs lightly beaten, and half a teaspoonful of good yeast. Stir well together; pour it into a buttered pan, or mould, and set in a warm place to rise. It will be light in about four hours; bake it two hours. Eat it hot with butter.

NOTE. If desired a teacupful of sugar can be added to the milk and salt that are mixed and boiled.

285. *Rye and Indian Bread.*

Scald a quart of rye and another of indian meal, with a small quantity of boiling water, a teaspoonful of salt and a pint and a half of milk boiled—mix well together, add half a pint of fresh yeast, but not until the milk is cold. The mixture must be well kneaded and placed in a deep pan by the fire to rise. When it has risen sufficiently take it out of the pan, make it into any shape you like, and put it into an oven well heated.

NOTE. If the fire is too brisk the crust will brown, and the inside remain heavy. Let it bake from two to three hours.

286. *Hasty Pudding.*

Two quarts of clean water in a pot with a teaspoonful of salt, and when it boils stir in a lump of fresh butter the size of a goose egg; then keep adding slowly indian meal to the mass while boiling, till it becomes so thick that the stick stands upright in it. Eat while it is hot with milk, cream, or molasses and butter.

NOTE: What is left will be excellent the next day cut in slices and fried.

287. *Indian Meal Gruel.*

Mix in a quart bowl three tablespoonsful of indian meal well sifted, with six of cold water. Stir well until it becomes smooth, then pour a pint of boiling water

slowly into the bowl, mixing it all the time, and adding a little salt; then put it in a sauce-pan, and boil half an hour, stirring it well from the bottom to keep it from burning, and skimming it. Let it be eaten warm.

NOTE. It may be sweetened with a little sugar if desired, and when the physician permits, some grated nutmeg may be added, and a little wine.

288. *Johnny Cake.*

A quart of Indian meal in a pan—make a hole in the centre, and pour in a pint of warm water with salt; then mix with a spoon gradually; stir hard for 15 minutes till it becomes light and spongy, then spread out upon a board—the head of a flour barrel will do—place the board nearly upright before the fire. Bake it well. When done cut in squares. Serve hot with butter or molasses according to taste.

NOTE. If preferred you can bake in a pan instead of on a board as directed above.

289. *Indian Meal Cakes.*

One pound of brown sugar, three-quarters of a pound of butter; stir them to a cream; beat three eggs and mix with the sugar and butter; add a teaspoonful of cinnamon or ginger; then stir in slowly a pound and three-quarters of white indian meal, and a quarter of a pound of wheat flour. Bake in small cups, and let it remain in them till cold.

NOTE. Let the meal be sifted. They can be made richer by adding more eggs and sugar, according to taste.

290. *Hot Short Rolls.*

Dry the flour before the fire, and to it add an egg well beaten, salt, two spoonsful of yeast and a little warm milk—make into a light dough, and let stand by the fire or a warm place all night. Bake the rolls in a well heated oven.

291. *Hoe Cakes.*

One quart of indian meal scalded in sufficient water to make a thick batter; two teaspoonsful of salt, and two

tablespoonsful of butter stirred into the batter—turn it into a bake-pan buttered, and bake half an hour.

292. *Muffins.*

A quart of wheat flour smoothly mixed with a pint and a half of warm milk, half a tea-cupful of yeast a beaten egg, teaspoonful of salt, two tablespoonsful of melted butter. Set the latter in a warm place to rise. When light, butter your muffin cups, turn in the above, and bake till a light brown.

293. *Excellent Buckwheat Cakes.*

Mix one quart of buckwheat, half a pint of indian meal, and a teaspoonful of salt—make a hole in the centre of the meal and pour in a large tablespoonful of strong fresh brewers' yeast, or two tablespoonsful of home-made yeast. Then gradually stir in tepid water until you make a moderately thick batter. Let it rise, which it will do in about three hours, then bake on a griddle. Serve with butter and molasses to taste.

NOTE. Do not allow your batter to freeze. Should it by standing over night become sour, dissolve a salt-spoon of pearlash or saleratus in a little warm water, stir it into the batter, let it stand a quarter of an hour and then bake it. The alkali will remove the acidity, and increase the lightness of the batter.

294. *Nice Johnny Cake.*

One quart of sifted indian meal, rubbed up with two large tablespoonsful of fresh butter—add a small tea-cup of molasses, a teaspoonful of ground ginger and ditto of salt, and pour on by degrees sufficient boiling water to make a moderately soft dough. It must be well stirred—then bake on a board before the fire, or in a pan. It must be well baked, taking care that the surface does not burn while the inside is soft and raw. Serve hot with butter.

295. *Crumpets.*

Prepare just in the same manner as muffins, only add no more flour than brings it to the stiffness of batter.

Let it stand a quarter of an hour, and then bake. Be careful that the oven plate or frying pan is not too hot, and when lightly browned on one side turn on the other.

NOTE. Both muffins and crumpets are best baked on an iron plate over a furnace; but they may be done very well in a clean frying pan over a fire.

296. *Sponge Cake.*

Take ten eggs and beat them till very thick and smooth. Add gradually one pound of powdered loaf sugar. Rub a lump of loaf sugar all over the rind of a large lemon to draw the juice to the surface, and stir it into a mixture; then grate the peel of the lemon, and stir into the mixture, together with the lump of sugar. Squeeze in the juice of the lemon, and add two table-spoonsful of rose water. Beat the mixture very hard; then take half a pound of potatoe flour (which is best) or else of fine wheat flour, and stir it in very lightly and slowly. It must be baked immediately.

NOTE. These cakes are much better when baked in paper cases—tins being generally too thick for them. No cakes require greater care in baking. If the oven is not hot enough, both at top and bottom, they will fall and be heavy, and lose their shape.

297. *Pound Cake.*

Beat a pound of butter to a cream, and mix with it the whites and yolks of eight eggs beaten apart. Have ready warm by the fire a pound of flour, and the same of sifted sugar; mix them and a few cloves, a little nutmeg and cinnamon, in fine powder together; then by degrees work the dry ingredients into the butter and eggs. When well beaten, add a glass of wine and some carraways. It must be beaten a full hour. Butter a pan and bake an hour in a quick oven.

298. *Plum Cake.*

Flour dried and currants washed and picked, four pounds; sugar pounded and sifted, one pound a half; six orange, lemon and citron peels, cut in slices—mix these. Beat ten eggs, yolks and whites separately—then

melt a pound and a half of butter, and a pint of cream; when lukewarm put it to half a pint of yeast, near half pint of sweet wine and the eggs—then strain the liquid to the dry ingredients, beat them well, and add of cloves, mace, cinnamon and nutmeg—half an ounce of each. Butter the pan, and put it into a quick oven. Three hours will bake it.

299. *Icing for Cakes.*

For a large one, beat and sift eight ounces of fine sugar, put into a mortar with four spoonsful of rose-water, and the whites of two eggs beaten and strained; whisk it well, and when the cake is almost cold, dip a feather into the icing and cover the cake well; set it in the oven to harden, but do not let it stay to discolor. Put the cake in a dry place.

300. *A Plain Cake.*

Four pounds of flour, two pounds of currants, and half a pound of butter, with clove, carraway, and coriander seeds to the taste, together with lemon peel grated. Wet it with milk and half a pint of yeast

301. *Seed Cake.*

Mix a pound and a half of flour and a pound of common lump sugar, eight eggs beaten separately, an ounce of seeds to the taste, two spoonsful of yeast, and the same of milk and water.

302. *Drop Cakes.*

Beat the yolks of ten eggs with a spoonful of rose-water for half an hour, then add six ounces of loaf sugar pounded and sifted; beat them together for half an hour longer, then add six ounces of fine flour, and a half ounce of carraways. Drop them on white paper.

303. *Tea Cakes.*

Mix a paste of flour, a little bit of butter and milk; roll as thin as possible, and bake.

304. *Biscuits.*

Rub into a pound of flour six ounces of butter, and

three large spoonful of yeast, and make it into a paste with a sufficient quantity of new milk; make into biscuits, and prick them with a clean fork.

305. *Biscuits—(another.)*

Melt three ounces of butter with a sufficiency of new milk warmed, to make three and a half pounds of flour into a stiff paste; roll thin, and make into biscuits.

306. *Rusks.*

Beat seven eggs well, and mix with half a pint of new milk in which has been melted four ounces of butter; add to it a gill of yeast and three ounces of sugar, and put them by degrees into as much flour as will make a very light paste, rather like a batter, and let it rise before the fire a half hour—then add some more flour to make a little stiffer, but not stiff; work it well and divide into small loaves or cakes about five or six inches wide, and flatten them. When baked and cold, slice them the thickness of rusks, and put them into the oven to brown a little.

307. *Gingerbread.*

A pint of molasses, a teacup of sour milk or buttermilk, a tablespoonful of ginger, two spoonful of melted butter, two teaspoonsful of salærat dissolved, and flour sufficient to roll. Cut it about half an inch thick, and bake in a quick oven.

308. *Soft Gingerbread.*

One cup of cream, one of molasses, a teaspoonful of ginger, one of salærat dissolved, a little salt. Bake in half an hour.

309. *Ginger-Nuts.*

One cup of molasses, half a cup of sugar, a spoonful of ginger, one cup of butter, half a cup of sour milk, two teaspoonsful of salærat dissolved in boiling water, and stirred in after the flour. Make it just stiff enough to roll very thin—cut in small cakes, and bake in a slow oven.

310 *Bakers' Gingerbread.*

Four ounces of salærat dissolved, and put in a

gallon of good molasses; four spoonsful of ginger mixed with sufficient flour; have four ounces of alum pounded and dissolved in a small quantity of boiling water, kept boiling until wanted, and pour in last; rub in the flour two pounds of butter. Make it as soft as can be rolled and cut in squares.

311. *A Genuine Sponge Cake.*

Seven eggs, twelve ounces of sugar, one of butter one of sour cream, one of sour milk, a teaspoonful of saleratus, and one of carraway seed. Mix—bake.

312. *Lemon Syrup.*

One pint of lemon juice, one pound and three-quarters of sugar dissolved in the juice by a gentle heat—skim till clear, and then add the rinds, previously peeled off; simmer gently eight or ten minutes, and strain through a flannel bag. When cool bottle tight with sealed corks.

313. *Orange Syrup.*

To one pint of the juice of fresh oranges add a pound and a half of sugar; dissolve the sugar in a gentle heat. After the sugar has dissolved put in the peels; then set the syrup where it will boil slowly six or eight minutes, then strain it through a flannel bag. Do not squeeze the bag while the syrup is passing through, if you wish it clear. It is nice to flavor pies and puddings.

314. *Blackberry Syrup.*

Take ripe blackberries, simmer them over a moderate fire, till they break to pieces, and then strain them through a flannel cloth; add one pound of white sugar, half an ounce of powdered cinnamon, a quarter of an ounce of powdered mace, and two teaspoonsful of powdered cloves to each pint of the liquor. Boil fifteen minutes—strain, and when cool, add to each pint of syrup a wine-glass of French brandy. Bottle, cork seal, and keep it where cool.

NOTE. This makes a very grateful summer beverage. Also, it is good when mixed in the proportion of a wine glass of syrup to two-thirds of a tumbler of cold water for dysentery and similar complaints.

315. *Elderberry Syrup.*

One pint of molasses to a pint of the juice of perfectly ripe berries, well washed and strained—boil together twenty minutes, stirring it constantly. When cold add to each quart half a pint of French brandy. Bottle and cork tight.

NOTE. Good beverage when mixed with sufficient water, or for bowel complaints, or a light cough.

316. *To Clarify Sugar for Sweetmeats.*

Put your sugar in a kettle, and to each pound add a gill of cold water; to every three pounds of sugar the whites of one egg beaten to a froth, well mixed with the sugar and water. Set it on a slow fire—stir the whole well together, then set it where it will boil. As soon as it boils up well take it from the fire and skim it, and repeat this operation till the syrup is clear. Put the fruit in when it is cold.

NOTE. The fruit should not be crowded while doing—and if there is not sufficient syrup to cover the fruit, take it out of the syrup and put in more water, and boil it with the syrup before putting back the fruit.

317. *Important Rules for Making Preserves.*

RULE 1. Equal parts of sugar and fruit, or pound to pound is good as a general rule, though some kinds of fruit require more, and some will do with less than their weights of sugar—depends upon their acid.

RULE 2. Good brown sugar, if clarified before putting in the fruit, does very well for most kinds of fruit; and for family use, three-quarters of a pound of sugar to a pound of fruit does very well. The nicest kind of white sugar does not need clarifying.

RULE 3. All kinds of fire-proof ware, except iron ware, will do to preserve in.

RULE 4. The fruit should be turned out of the preserving kettle as soon as done, and set away.

RULE 5. It should be looked to often, to see that it does not ferment; if it should, the syrup must be turned off and scalded, and turned back while hot.

318. *Preserved Quinces.*

After paring, coring, and taking out the parts that are knotty and defective, cut them in quarters; put them in your kettle covered with their parings, and a very little water; lay a large plate over them to keep in the steam, and boil them till they are tender. Take out the quinces, strain the liquor through a bag, and to every pint allow a pound of loaf sugar. Boil the juice and sugar together about ten minutes, skimming it well; then put in the quinces and boil them gently twenty minutes. When the sugar has completely penetrated them, take them out, put them in a glass jar, and turn the juice over them, warm. When cold, tie them up with paper dipped in clarified sugar.

319. *Preserved Pine Apples.*

Pare, core, &c. One and a half pounds of loaf sugar to a pound of the apple. Mix half the sugar with the apple, and let them lie all night, to extract the juice; then mix them with the remaining half of the sugar, and put the whole in a preserving kettle. Boil it till clear and tender, but not till the slices break. Skim it well—set it away to cool; put into large glass or earthen jars, and tie over clarified paper.

320. *To Preserve Currants, Gooseberries, Cherries, Grapes or Raspberries.*

One pound of the fruit to one pound of powdered loaf sugar. Stew half the sugar over the fire, and let stand in a cool place two or three hours; then put them in a preserving kettle, over a slow fire, and by degrees strew on the rest of the sugar; boil them fifteen or twenty minutes, and skim them well. Put them in wide mouthed bottles, and when cold seal the corks.

321. *Preserved Apples.*

Prepare as quinces—chop the apples fine, or quarter them; allow one pint of water to every three pounds of brown sugar—dissolve, then boil the sugar pretty thick, skimming it well. Add the apples, the grated peel of one or two lemons and two or three pieces of white ginger, and boil till the apples look clear and yellow. NOTE.—Crab apples may be done the same way without paring—are next to cranberries.

322. *Transparent Apple Sauce.*

One pound of loaf sugar dissolved in three pints of water and boiled; skim it put in the apples pared, quartered, and cored, with the juice of lemon, and let them boil, uncovered, till tender.

323. *Good Family Apple-Sauce.*

Two quarts of water, a pint of molasses, a root of ginger, and boil all together twenty minutes—put in while boiling a peck of pared, quartered and cored apples, and boil the whole moderately an hour and a half or two hours.

324. *Cider Apple-Sauce.*

Take new sweet cider, and boil it down until it becomes a syrup as thick as molasses; when cold strain it through a sieve, then let it boil, and while boiling put in your apples pared, quartered, and cored, and stew over a slow coal fire till the fruit is perfectly tender.

325. *Preserved Peaches.*

Take the large free-stone peaches, fully grown, but not mellow, pare, halve, or quarter them; crack the stones, take out and break the kernels; put paring and all into your preserving kettle, with a very little water; boil till tender; then take out and spread the peaches on a large dish to cool. Strain the liquor through a sieve or bag. Next day put to each pint of the liquor a pound of loaf sugar. Put the liquor and sugar, dissolved, into the kettle with the peaches, and boil them slowly till they are quite soft, skimming all the time. Take the peaches out, put them into your jars, and turn the liquor over them warm.

NOTE. Do not boil too long, or they will be of a dark color.

326. *Preserved Cherries.*

Dissolve one pound of white sugar to a pound of fruit. Boil the sugar dissolved, and when thick, put in the cherries with the stems on, and let them boil till transparent.

To preserve them without, you must take such as are very ripe, push out the stones carefully with a darning or tape needle; make syrup of the juice, and then boil the cherries to a thick consistency.

327. *To Make a Good Cup of Tea.*

Three teaspoonsful of tea to a pint of water; pour on the water boiling hot, and let the tea steep about ten or fifteen minutes.

NOTE. Black tea is the most healthy—green and black tea mixed half and half is healthier and safer for those who drink strong tea, than to trust themselves wholly with green.

328. *Cocoa Shells.*

Soak over night, and boil them in the same water in the morning. They are somewhat nutritious, healthy and cheap.

329. *Chocolate.*

One pint or less of water to each square of chocolate scraped off fine. Stir it while boiling, and let it be uncovered. After boiling twenty or thirty minutes pour in your cream or rich milk, and let it boil up.

330. *Mode of Making Coffee.*

Three tablespoonsful fresh ground coffee to every pint of water; put the coffee into a basin, and break into it an egg, yolk, white, shell and all—mix well with a spoon; pour on the water warm, not boiling; put into the coffee pot; let it boil up and break three times, then stand a few minutes, and it will be as clear as amber and the egg will give it a rich taste.

NOTE. Instead of having this work treat upon every subject important to the economical housekeeper, we have confined our Recipes to the cooking department chiefly. For a fuller collection of Recipes upon every variety of subjects, we could respectfully refer the reader to our "UNIVERSAL RECIPE BOOK," after the perusal of which we are confident no housekeeper would part with it for many times its cost.

AN APPENDIX

OR, SUPPLEMENT,

Containing many valuable hints pertaining to Cookery, and the use which should be made of this art. It should be read with care, as many things valuable to health and comfort are therein contained. It has been written by a Physician, who is competent to judge of the things of which he here treats—and as a dissertation upon the subjects noticed, is worth to a family all that this little volume costs.

OF MAN.

Man is a compound being, having two distinct natures a body and soul—the former was formed out of the earth, and the latter the great Creator breathed into man when he became a living soul.

Divine Revelation instructs us as to the rich provisions of grace and mercy for the soul of man, and it also gives to us valuable hints as to the appropriate nourishment for his physical nature, while the providence of God provides for him all things richly to enjoy.

He who made man certainly knew what was best for him, and he has from time to time given to him instructions which if attended to will guide him as to the general principles upon which his animal nature is to be supported, so as to be most conducive to health and longevity.

His Food

It is a physiological truth that man is omnivorous, and therefore so constituted as to partake of, and enjoy almost every kind of food which separately nourishes

all the animal tribes. His teeth, organs of digestion, and whole animal nature, are adapted to flesh, fish, and all the farinacious and vegetable substances. Thus man, to make him the more grateful to his bountiful Creator, is made to enjoy all the good things of His providence.

Notwithstanding our natures are adapted to a mixed diet of flesh and vegetables, yet man when first created was limited to the latter. "And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in which is the fruit of a tree yielding seed; to you it shall be for meat."

This law was probably observed from the days of Adam until after the flood—a space of more than 1600 years,—but when Noah and his family came forth from the Ark the diet of the race was changed—they were allowed, and even commanded to use animal food as well as vegetable. "Every moving thing that liveth shall be meat for you; even as the green herb have I given you all things. But flesh with the life thereof, which is the blood thereof shall ye not eat." Thus Abraham dressed a calf tender and good, and set it before his angel visitors. Thus too when God fed Elijah the Prophet by the ravens, they "brought him bread and flesh in the morning, and bread and flesh in the evening,"—and thus also Christ fed the multitude with fish and bread, partook of the same himself, and "came eating and drinking" like other folks, in contradistinction to John, whose "meat was locust and wild honey."

The Preparation of his Food.

Man being a reasonable creature it will be supposed as a matter of course that he will exercise his reason in the preparation of his diet. God gives the material out of which to make our bread, but man has to prepare it. It is true that he can eat and digest flesh and vegetables even in a raw state, but he is not driven to such necessity. The means with which he favored, the intelligence with which he is endowed, place him under circumstances to improve and perfect the materials given to him for

nourishment, so as to render them more palatable and healthy. This is done by the art of *Cookery*, in which two very important agents are employed—namely, fire and water.

The Eating of his Food.

Though we are physiologically adapted to every variety of food suited to animals, yet are we to exercise our reason as well in partaking of it, as that of preparing it. “Milk for babes” is as true a saying as it is divine. And why? Because they have no teeth to masticate meat. To give them meat would be a sin against nature. Many an infant by the indiscretion of its nurse in this particular, has had its life prematurely forfeited. The same remark may apply to old people who have lost their teeth, and cannot therefore masticate their food; and whose digestive organs are too feeble to perform their functions in a vigorous manner. It may also be added that persons of sedentary habits or of delicate constitutions, should use great care as to both the quality and quantity of their diet. In short we should all, the healthy and the vigorous, the delicate and the feeble, not violate either by intemperance or indiscretion the laws of our physical natures by an intemperate gratification of our appetites.

The Manner of Eating.

Always take plenty of time to eat. A thousand fold more time is lost by rapid eating than is saved. See that your food is well cooked, and then take time to eat it. Do not swallow your food until it is thoroughly masticated by your teeth; for what is omitted by your teeth must be done by your stomach—and remember that you had far better wear out your teeth than your stomach. You may lose your teeth, and by a proper selection of your diet not lose your health; but you cannot lose the use of your stomach without losing both your health and your life.

When you eat do not mix too large a quantity of fluid with the solids—the former if received into the stomach

in too large a proportion will greatly etard digestion, as the stomach will not act upon the solids which it receives until it disposes of its fluids. This, it will be perceived, throws upon that organ frequently an unnecessary amount of work, and often lays the foundation for debility and fatal disease. If, therefore, we would enjoy our food, and receive the benefit from it intended by the Author of our existence, we should rather "eat to live," than "live to eat." Not to insinuate with a late writer that "eating is an unpoetical thing." Nor can I say with Lord Byron that "I dislike to see a woman eat." The supposition too commonly entertained among young ladies that living very delicately will add to their personal charms, is exceedingly erroneous. A generous diet is, in most instances, absolutely essential to the complexion; while indigestion, brought on by a regimen ill-adapted to the constitution, is frequently injurious to the beauty of the countenance, and destructive to the symmetry of the form. The truth is, there is nothing so beautiful in the human form, as nature adorned with health.

Eating—A Means of Life and its Enjoyment.

We cannot live long without eating. We cannot enjoy health without eating properly. Hence eating is a very important duty and privilege granted to us. It is not then improper to regard the manner in which our bodies are nourished and sustained in health in the light of an important science. The food adapted to the human system may be prepared so as to administer to our nourishment and comfort, if taken in a seasonable and proper manner; or it may be prepared in a way to greatly lessen the pleasure of eating it, and the benefits which we should otherwise derive from it. After mankind have experimented upon these points for many thousands of years, and after so much has been thought and written on this subject, we may suppose it possible at this age for us to arrive at something definite with regard to the science of cookery, couched in language that any person with common sense can understand; and by a suitable attention to it may become so far proficient

in the art as will be necessary to utility in the discharge of the every day indispensable duties of a prudent and skilful housewife.

Cookery a Science,

And therefore to acquire a knowledge of it, all who have it to do should study it. The practical part of this science devolves upon all housewives. Rich or poor, all should understand it. But how can this science be practiced without a correct knowledge of its theory? We all know that *theory* and *practice* should always be united. A correct *theory* followed out with a corresponding *practice* constitutes a right act. And the former always should precede the latter. And if it does in this department we infer that it will be done just as it ought to be.

Married ladies either have to perform or superintend the duties of Domestic Cookery. Hence they should always know how it ought to be done; then they can either do it themselves, or superintend their servants and see that it is done as it should be; and this, while it will increase their influence with their servants and domestics, will be pretty sure to give satisfaction to their husbands, and all concerned.

Besides the right management of Domestic Cookery, while it administers much to the comfort and health of the family, will also contribute to that economy which it is the duty of every wife to study in the management of the affairs of her household. Hence there are some women so versed in this science that they will provide a good meal of the very things which others for the want of this knowledge would cast aside as useless. It helps to know how to "gather up the fragments that nothing be lost," which is essential to the right exercise of economy. A work therefore on Cookery should not be to learn persons to be extravagant, but to know how to do every thing right, and therefore to turn every thing to the best advantage.

The Theory of Cookery a Study.

Such a theory can be written, and within the limits of a

small book—the learning and experience of the past may be collected—all arranged under its appropriate heads may be made so plain and simple that any one who can read may understand it, and acquire such a knowledge of the *theory* of cookery as will be sufficient for all practical purposes.

Numbers of books have already been written upon this subject, both in Europe and America, each of which has its appropriate excellence. Still just such a book as is needful to meet the wants of this great American Republic in its length and breadth—in its cities full, and the more sparse populated and extended territory of country is a *desideratum*. Such an one this work is intended to supply.

This is a rich country, abounding with all kinds of beasts of the field—fowls of the air—fish of the sea—the hidden treasures of the sand, and “every herb bearing seed, which is upon the face of all the earth, and every tree, in which is the fruit of a tree yielding seed.”

In view of these facts we should study to know how we may best enjoy the good things of this life. For it is to this end that our bountiful Creator opens his full and liberal hand and strews his blessings round so profusely. The design of this book is to furnish (as far as is practicable) some help to the better understanding of the *theory* and *practice* of preparing the various articles of food, so as to contribute to the pleasure and benefit of the eater. In doing of which, we shall endeavor to avoid two extremes. One is not to encumber the book with superfluous receipts, and thereby make it unnecessarily large and expensive—and the other is not to make it so small as to render it necessary to leave out many things necessary to constitute it a complete manual for Domestic Cookery.

The Practice of Cookery derived from its Theory.

This position is too obvious to require proof. It is true that there are many ways to obtain its *theory*. The mother may teach her daughter—the mistress her maid.

It may be handed down from generation to generation in a traditional manner; and no doubt many good things have been preserved in the art of cookery in this way. So far as this goes towards advancing the art, it demonstrates the fact that the practice of cookery is derived from its theory.

But concerning this mode of imparting its theory, all must perceive that it is too limited for general use—it must of necessity be confined to a favored few, and quite too limited for that *few*. The truth is, the door is open for all to become if they desire good practical cooks—to avail themselves of all that the favored few have acquired from oral instruction, and much more by a careful perusal and study as their necessities may require of the numerous and well attested receipts contained in this volume.

Order and Cleanliness important items in Cookery.

“A place for every thing and every thing in its place,” is a wise remark, and peculiarly important to all who would be successful in the art of cookery or good housewifery. Order, by which a person is enabled to keep all things in their proper places, is indispensable. For where order is wanting, neatness and cleanliness will also be wanting. To be always cleaning shows a great want of order. Such persons cannot be neat, as they generally keep themselves in business by soiling one thing as fast as they clean another. Some women are always fussing and musing, and complaining that their work is never done—and all this for the want of system in the performance of their duties, and the regulation of their household affairs. A visit to their kitchen will make “long teeth.” No matter how good the provision which is set upon the table, or how well it may be cooked, yet if the cook looks sluttish, or it be known that she is not neat and cleanly, it will be “eaten with long teeth,” which will take from the pleasure which otherwise would be enjoyed at that table, more than a hundred per cent.

A plain dish well cooked, in a neat place, every thing

in good order around, and especially a cook whose person looks clean and tidy, any one can enjoy—and certainly would prefer to that of a sumptuous table, spread out with every variety to sharpen the appetite, and invite a hearty participation, except that simple commodity of cleanliness.

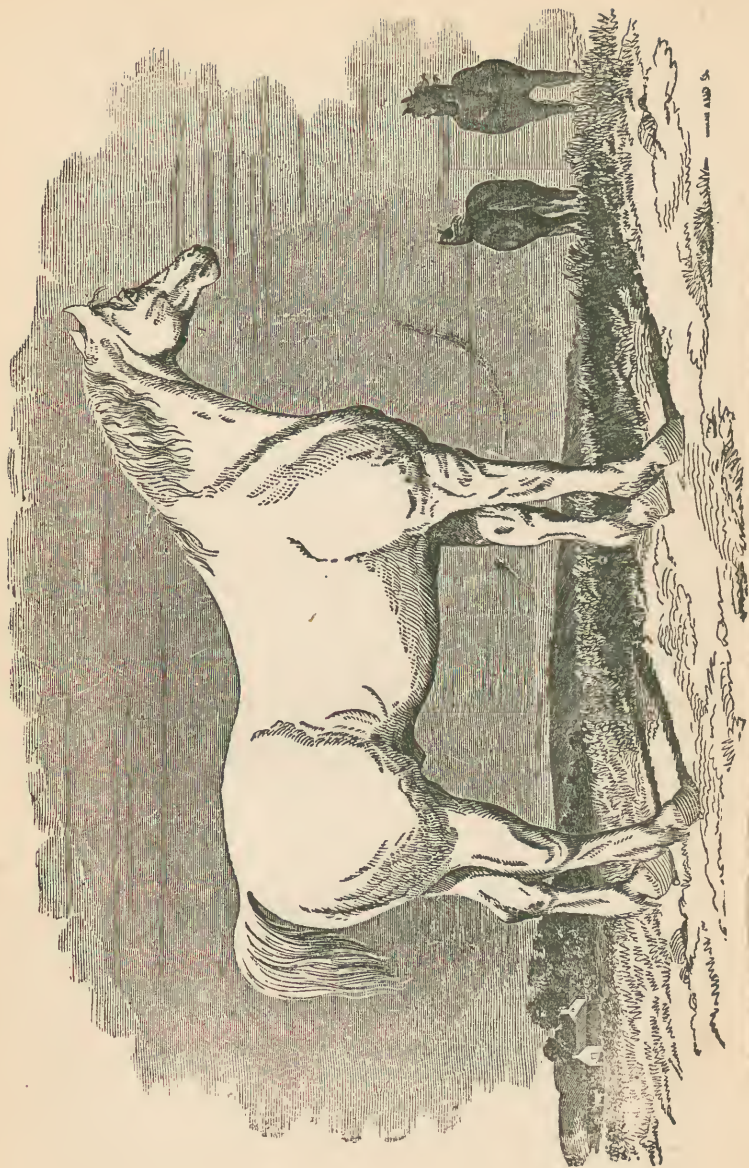
Good Cookery necessary to Good Health.

Good cookery contributes to a good appetite, and a good appetite contributes to good health. Health and cheerfulness depend much upon the state of the stomach. Let its functions be healthy and vigorous, and health will flow out as a consequence. Hence it is not unimportant to consult what will best promote the regular performance of the natural functions of this organ. Our diet rightly prepared, and temperately enjoyed, constitute the natural means through which the stomach imparts nutrition to all the parts of the human system. Dr. Cheyne says, "he that would have a clear head must have a clean stomach." Dr. Waterhouse adds, "the faculty the stomach has of communicating the impressions made by the various substances that are put into it is such, that it seems more like a nervous expansion from the brain than a mere receptacle for food." Dr. Kitchiner asserts that "the stomach is the mainspring of our system; if it be not sufficiently wound up to warm and support the circulation, the whole business of life will, in proportion, be ineffectually performed. We can neither think with precision, walk with vigor, sit down with comfort, nor sleep with tranquility. There would be no difficulty in proving that it influences, much more than people imagine, all our actions."

An anecdote is related of Dr. Samuel Parr, a profound Greek scholar and Christian philosopher, who was born 1746 and died 1825. A few weeks before his death, for he was conscious that he had but a short time to live, he made arrangements for his funeral; and amongst other things, he prepared a bill of fare for his funeral dinner. The dishes were all cold. He expressed his regret to a clerical friend, that he could not give them a

hot dinner, "but that is impossible" he said, "for there is no convenience in the house to cook for so large a number. I am much afraid," he continued, "lest you parsons should get a hot dinner for yourselves, and leave the poor laymen to the cold meat; but I should be very angry if I could know it. I always liked to take care of my own stomach, and other people's. If that is wrong nothing can be right."

Hence Descartes, an eminent philosopher of the 18th century, when enjoying himself over a good dinner, was addressed by a fribble of a marquis, "Hey! what, do you philosophers eat dainties?" To which he gave the following laconic reply—"Do you think that God made good things only for fools?"



FARMER'S GUIDE

IN ¹ 1 F.

MANAGEMENT

OF

DOMESTIC ANIMALS,

AND

THE TREATMENT OF THEIR DISEASES

**Treatise on Horses, Mules, Neat Cattle.
Sheep, Swine, Poultry, Bees, etc.**

BY THOMAS B. WILLIAMS.

EMBELLISHED WITH ENGRAVINGS.

NEW YORK:
E. C. BRIDGMAN,
5 BARCLAY STREET.



PREFACE.

A KNOWLEDGE of the proper management of domestic animals, and particularly of the causes, preventives, symptoms, and treatment, of the various complaints they are subject to, should be possessed by every farmer. Should a member of his family be indisposed, the medical adviser, expressly educated to prescribe for "the ills that (human) flesh is heir to," can be readily called in, and the case properly treated. But for his quadrupedal and gallinaceous tribes—with the exception, perhaps, of here and there a farrier—no such provision exists; and the farmer, when an animal is attacked by disease, has to rely upon his own skill and resources for its treatment. The dictates of humanity, therefore, as well as a proper regard for the welfare of his flocks, render a knowledge of the proper course to be pursued at such times indispensable. It is with a consciousness of this necessity, and in a measure to supply the wants it indicates, that the present work has been prepared. In addition to the experience of the writer, information has been drawn from the best authorities, some of it from voluminous works not generally accessible; and indeed were they, few farmers would have either the time or the patience to glean it out.

It has been the design of the writer, to make the work strictly practical—to leave speculative reasonings to vol-

umes prepared for those who have time to spend in their perusal—in short, to avoid all superfluous detail, and give the information in as few words as a proper understanding of it would permit. He has given no directions which will not be clearly understood, and which may not be easily followed; and among the prescriptions which he has furnished for the cure or amelioration of animal diseases, he believes none will be found which are not readily available by every farmer. In every case the treatment recommended may be relied on and regarded as neither untried nor hazardous, but such as will generally prove successful.

It was the apology of an eminent writer, for extending a work through several large volumes, that he “had not time to make it more brief;” and although, to those who have not made the experiment, it may appear unreasonable, it may be safely asserted, that, to condense and give within the limits of the present volume, anything like the amount of information which, on examination, it will be found to contain, requires far more time, labor, and patience, than to compile a work of several times the size.

With these observations, the Farmer’s Guide is respectfully submitted to the judgment of those, for whom it has been especially prepared, in the confident hope that it will be found adequate to the purposes for which it is designed.

T. B. W.

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THE FARMER'S GUIDE.

THE HORSE.

OF all animals created for the use of man, the horse is acknowledged to be the most serviceable, and is the most abused by the unthinking and unmerciful. It is tractable, if broken while young. While it is difficult at this day to determine from what quarter of the world horses were originally brought, it is most probable that they came from Asia. They likewise, for ages, have been found in their wild state, in the vast plains of Africa, and in other parts of the world, where their meat has been used for food by the natives.

TO CHOOSE A HORSE.

While it requires much skill to select a horse that is good in every respect, it is very difficult to give such particular directions as will always insure the purchaser against being deceived. To those unacquainted with this animal, and the arts and deceptions often practised by the horse-dealer, it may appear unaccountable that as definite instructions can not be given for the purchase of a *horse* as of other animals. A few general directions are all the limits of this work will allow. A short trial is the best way of estimating his worth; but where this is not allowed, the following suggestions are submitted, and, if followed, will be as sure a safeguard as it is possible to have.

The *eyes* should first be examined as closely as possible, as dealers of long experience are often deceived in them. Clearness of the eyes is a pretty sure evidence of their goodness. It is a bad sign when they appear lifeless or unusually flat. Again, it is a sure indication of

imperfect sight, when he is brought out of a dark stable, for him to wrinkle his brow often, and look up, apparently endeavoring to see plainer.

The *teeth*, in the next place, will require particular examination. A horse has six teeth above and six below in the foremouth, which are denominated the *cutting* teeth. At about two and a half years old it changes two on the top and two on the bottom, which are called the *nippers*; at three and a half it changes two others; at four and a half years it changes the *nook teeth*; at five years old it has a *full mouth*, when the tusks appear. At six years old, the *nook teeth* are a little hollow; at seven years there is a black mark like the end of a ripe bean; after seven years it is difficult to ascertain the exact age of the animal, but as years increase, the flesh will be observed to shrink from the teeth, which grow long and yellow.

The *feet* should next be examined. They should be smooth and tough, of a middle size, without wrinkles. The *heels* should be firm, and not spongy, the *frogs* horny and dry, and the *soles* somewhat hollow, like the inside of a dish or bowl.

Particular regard should be had to the *limbs*, to see that they are free from *splents** and *windgalls*;† the *knees* should be straight, and not bending, or what is called a calf's knee; the *back sinews* strong, well braced, and free from swellings of all kinds; and the *hocks* lean, and free from *spavins* and all *tumors*. The body should be about the medium size, the *back* straight, or have only a moderate sinking below the withers. When the back of a horse is low, or higher behind than before, it is very unsightly, and a sign of weakness. The *ribs* should be large; the *flanks* full; a horse with a short hind quarter does not look well.

It is very important that the *wind* of the horse should be regarded; this can easily be ascertained by the motion of his flanks, after driving him fast for a few rods soon after he drinks in the morning. A broken-winded horse always pinches in his flanks, with a very slow mo-

* There are several kinds of *sp. nts*, viz., the bone-splent, the blood splent, and the horn-splent.

† Windgalls are soft tumors seated on either side of the fetlock joint.

tion, and drops them suddenly; yet horses whose wind is perfectly good, may breathe thick, in foggy weather, or if foul fed and without sufficient exercise.

There are other particulars that should be observed in choosing a horse. If his *head* be large, and his *neck* fleshy, he will go heavy. It is well to ascertain the *temper* of a horse. If it is good it greatly adds to his value; but if bad, it is always unsafe to use him: this can be easily ascertained by a short trial.

These few instructions may be of great use in purchasing horses; but it requires experience before trusting to one's own judgment, for probably in no business are the arts of deception carried farther than by the horse dealer; and the best judges are often much deceived.

We come now to treat of the diseases of this noble animal, with their symptoms and treatment.

BOTTS AND WORMS.

Much has been said respecting worms in horses, with but little knowledge. Many horses are kept weak, and low in flesh, and are killed by them. Horses that are well kept are not so subject to worms as those that are hard worked and badly fed. There are different species of worms, but the worst kind is the long round worm, resembling the common earth-worm, of from five to eight inches in length. They are very hard, and inhabit the small intestines.

Symptoms.—The symptoms are various, as the animals are constitutionally different, and the difficulty seated in different parts of the body. When the botts are in the rectum, they are not dangerous, but are often thrust out with the dung. They sometimes breed in the stomach, and often cause convulsions and death. Violent agonies of the creature are an indication of their existence in that part of the body. The eye, also, is dull and glazed. They are often attended with a voracious appetite, which continues to the last.

Cure.—A strong dose of physic, or an injection of linseed oil, will sometimes effect a cure. If physic is preferred, take 1 oz. aloes, 1 dram of calomel (8 drams to

the oz.), 1 dram oil of aniseseed, 2 drams of powdered ginger; beat all up together in a mortar, till the aloes are well broken, and the whole is brought to a paste—which roll into a ball, and give, fasting for one hour after; also give a small quantity of warm water, gently walking the horse until it operates. It will be well to see that the horse is open in body before giving this ball; the animal should also rest for twenty-four hours. If the horse is of small size, the *dose* must not be quite as large as above specified. If this should not effect a cure, the dose must not be repeated short of one week. There is another kind of worm, small, round, and hard, that requires different treatment, to destroy which give the following: 1 dram of calomel, 6 do. of jalap, 6 do. of rhubarb in powder, wrought into a paste and given as above. A small quantity of *rosin*, dried and powdered, may be given before the worm-physic is taken. One ounce per day will be of much benefit.

Botanical Cure for Botts in the Stomach.—Take 8 oz. of dried sage, boil it thoroughly in as small a quantity of water as will answer to get its strength; strain it well; add 1 pt. of sweet milk, and 1 pt. of molasses; give it to the animal; and when it enters the stomach the botts will relinquish their hold and fill themselves with the sweet milk, and the horse will immediately be relieved, when a thorough potion of purgative medicine should be given to carry off the botts, and the animal will speedily recover. This is considered by many who have tried it, to be the most safe and effectual remedy for the botts.

REMARKS.—It requires much judgment to distinguish between the botts and the colic, and similar complaints. Horses are frequently killed by administering powerful medicines, when a simple purgative would have removed the complaint. Probably for no other malady are there as many remedies prescribed as for this, among which are the following: Entrails of fowls, grease, oil, ashes, rye-heads, fresh meat, blood, tobacco, one spoonful of slaked lime, castile soap, molasses, vinegar, soot, new milk, honey, train-oil, laudanum, gin, &c. Care should be taken in administering the above articles, as some of

them are very powerful. Many times when a horse is taken with either *colic* or *botts*, it is found to be very difficult to get an operation of the medicine given, on account of the intestines being completely bound up. Chalk and vinegar are sometimes used as a last remedy, when purgative medicines and injections have failed to operate. When this medicine is administered, it is sure to force a passage in a few minutes or kill the animal.

Directions.—Take $\frac{1}{2}$ lb. of pulverized chalk, and 1 pt. of strong vinegar; put them into a long-necked bottle together, when a powerful fermentation will take place; put the forefinger over the mouth of the bottle, and shake it well; then place the neck of the bottle in the throat of the animal, while his head is extended; take off the finger, and the contents of the bottle will immediately force its way down the throat.

A COLD OR COUGH.

A cold is of such common occurrence, that little attention is generally paid to it; yet long experience has proved that a cold is the foundation of *most* of the diseases incident to horses. A cold is the result of driving the horse till he is hot, and then allowing him to stand exposed to the cold, or neglecting to rub him down after a hard day's work. When a horse has caught cold, a cough will follow; his eyes will be watery, the kernels about his ears and under his jaws will swell, and a slight running at the nose will be apparent. Occasionally the horse will be feverish, and refuse his food. If the cough is very violent, a slight bleeding will generally relieve him. Should this not effect a cure, and he refuse his food and appear feverish, give him the following drink: 2 oz. juice of liquorice, 2 oz. salt of tartar, 2 drams of saffron, 2 oz. honey; dissolve the whole together, in hot water, and give it nearly cold. This drink can be given as occasion requires, but let twenty-four hours first elapse. Or give, if more convenient, 4 oz. aniseseed, 2 oz. liquorice root, 1 oz. gum scammony, 1 oz. nitre; boil these together in three pints of water, for fifteen minutes, strain the liquor, add 2 oz. honey, and give blood warm. If the cough has been of long stand

ing, with loss of appetite, weakness, and wasting of flesh, it will be necessary to take a moderate quantity of blood. The next day give six quarts of scalded bran, and at night the following: 1 oz. powdered aniseseed, 1 oz. liquorice, 1 dram calomel; work them into a ball with stale bread. The horse should not be worked for two days, and should be kept from drinking very cold water. It is well, at the end of two days, to give the following dose: $\frac{1}{2}$ oz. powdered ginger, 1 oz. aloes, 1 oz. castile soap; put them into a mortar, and make them into a ball with wheat or rye bran. One hour after giving the above, give 3 quarts of warm water, and walk him moderately for an hour or two.

Other Remedies.—Give $\frac{1}{4}$ lb. Epsom salts, and on the following day take the small boughs of the cedar, cut fine and mixed with meal or wet oats. Or, take 2 oz. sulphur, mix with human urine, and give with his food. Or, take a handful of arsesmart, chopped fine, with hay or grain. Or, boil 1 qt. flaxseed half an hour, and give with meal mixed with bran.

FOUNDER

Is an inflammation of the foot, and is occasioned by over exertion, great heat (especially when followed by drinking freely of cold water), or overloading the stomach with heavy grain. Horses are oftener hurt in the feet than anywhere else. The utmost care should be taken, while travelling, to let them drink but little at a time, and never to feed with unripe grain (especially corn). When a horse is foundered, he will show it by great pain and fever in the feet, and extreme lameness. If the attack is very severe, it will be necessary at once to bleed freely from the foot, remove the shoes, and pare the hoofs; after which, place the feet in warm water, or apply flannel wet in warm water, for one hour; then apply poultices for two or three hours. He ought not to be worked for three days. If the attack is slight, moderate bleeding will relieve him. After a horse has once been foundered he is more liable to be injured again in the same manner.

WINDGALLS.

Windgalls are generally found on the hind legs, in the neighborhood of the fetlock, and are generally occasioned by violent action and straining of the tendons. They not only injure the appearance of the horse, but often produce lameness. A very small windgall may not injure a horse for a great length of time, and may be removed by placing a tight bandage upon it; but if the sac is large, bathe it with warm vinegar and spirits of wine, putting a tight bandage round it. If this should fail of a cure, lay on blistering ointment until it is removed.

BONE-SPAVIN.

The bone-spavin is a long excrescence or hard swelling on the inside of the hock in a horse's leg, and it is produced by either kicks or blows, and sometimes by natural causes. Spavins by the former are more easily cured than by the latter, and are also more easily cured in young than in old horses. Sometimes severe lameness is produced when the spavin is first coming out, after which it is better for a while, and is succeeded again by severe lameness.

Treatment.—When the spavin first appears, apply a blister every ten days, which will often effect a cure in a young horse. If the horse is old, the blisters should be applied oftener. A hot iron is sometimes applied with success, but must be used with great caution.

BLOOD-SPAVIN.

Blood-spavins are generally brought on by hard labor, when the horse is young, and sometimes when he is full-grown. This spavin consists in a dilation of the vein that runs along the inside of the hock, and forms a soft swelling in the hollow part, which in time renders the horse lame. On discovering the enlargement of the vein, or a bag forming, lay on some blistering ointment, and in three days after, bathe the part affected with hot vinegar, adding a little saltpetre with it; and also apply a bandage to keep down the swelling.

RINGBONE.

This is too well known to need a particular description here. It may be well, however, to remark, that it

is a deposit of hard bony matter in one of the pasterns, between the fetlock and the foot; but if the pastern be long, it is generally near the foot. A ringbone is difficult to cure; and the only successful treatment is by active blistering in its first stages, or by making a few holes just through the skin, and rubbing well with some penetrating mild oil, followed by blistering. As a last resort, apply the cautery.

GLANDERS.

This is one of the few disorder to which the horse is subject that, unless taken in its first stages, baffles the skill of the most celebrated doctors. People often mistake other disorders for the glanders. The disease is sometimes communicated by contagion, sometimes it is the result of hereditary transmission, and frequently produced by great fatigue and exhaustion.

Symptoms.—The matter discharged from the nostrils of a glandered horse, is either whitish, yellow, greenish, or tinged with blood. When the disease has been of long standing, and the bones are affected, the matter becomes black, and is very offensive. The glanders are always attended with a swelling of the kernels or glands under the jaws; but in every other respect the horse is healthy and sound, till the disorder has continued a long time. If the glands under the jaw do not continue to swell, and the disorder be recently contracted, a cure can be often effected by applying the following: 1 oz. of rochealum, 1 oz. white vitriol; powder them well, put them in a pint of warm vinegar, and syringe about an ounce up his nostrils every day.

HEAVES, OR BROKEN WIND.

The heaves may usually be avoided, but after this disease is once seated it can not be cured. All that can be done, therefore, is to give rules for prevention, and some remedies that will afford relief when it is seated, and render the horse capable of performing tolerable good service, notwithstanding his misfortune. The first symptom of a broken wind is a dry cough, with an increased appetite, and a disposition to drink large quantities of water. Sometimes the disorder is induced by a sudden

transition from heat to cold, or being confined in damp, cold stables, after severe working. When a horse is troubled with an obstinate dry cough, it will greatly relieve him to bleed him moderately; after which give him two or three doses of physic. Prepare the following: 4 oz. gum ammoniac, 4 oz. asafoetida, 4 oz. squills, $\frac{1}{2}$ oz. saffron, 6 drams of cinnabar of antimony; make the whole up into balls about the size of a large walnut, adding a little honey and liquorice, and give one every other morning. Another: take 1 oz. ginger, 2 table-spoonfuls of tar, and the yolk of an egg, and give every morning—letting the animal drink weak lime-water three times a day. The diet should also be carefully attended to. It will greatly relieve a horse, troubled with this complaint, to feed him with roots, and wet the hay as well as the grain on which he is fed. He should have *moderate* exercise, but none that is violent; and with dry and clean stables he will last for years.

THE STAGGERS.

This is a dangerous disease, and should receive attention at once. It is caused by the liver making blood so fast that the cavity of the heart is overloaded, and the blood flies up the neck vein till the head is likewise overloaded; and unless relief be obtained the horse soon dies.

Symptoms.—The most common are drowsiness, inflamed eyes, a disposition to reel, feebleness, loss of appetite, and the head hanging down or resting on the manger. The horse soon reels, and falls down, and sometimes bites everything that comes in his way.

Cure.—In the first place bleed him, by striking the vein in several places at once, and taking away four or five quarts of blood, according to the size of the animal. Let his head and shoulders be raised by putting a quantity of straw under them. If he survive the first fit, cut several rowels, and give him clysters twice a day, made of barley-water, adding a little sweet-oil and salt; and blow up his nostrils a small quantity of cayenné pepper or white hellebore; also give him, in one quart of warm water, $\frac{1}{2}$ oz. camphor, 16 grains turbith mineral or $\frac{1}{2}$ an oz. ginger, 4 grs. Peruvian bark. If he appears to be

in severe pain, give him, in a little warm water, 1 oz. opium, 1 gill syrup of poppies, 1 oz. tincture guaiacum. Care should be taken that he does not knock his head against anything, as that would aggravate the disorder. He will need a small dose of physic once a fortnight for two months.

THE SCRATCHES.

This disease is often very troublesome to the horse, and, unless speedily cured, often renders him lame and unfit for use. Sometimes in slight attacks of it, after properly cleansing the parts with weak soap-suds, a little flour of sulphur and spirits of wine or vinegar, made into an ointment and applied to the cracks, will effect a cure. Another: take 1 lb. hog's-lard, 4 oz. white-lead, 2 oz. powdered alum, 1 oz. white vitriol, $\frac{1}{2}$ oz. sugar of lead, 3 oz. olive oil; pulverize all but the lard, in a mortar or on a stone slab; then add the lard, and work the whole together until united. A small quantity must be put on the part afflicted, night and morning. In case of wounds or injuries from shoe-corks, it will be best to spread the ointment on bats of tow, and secure them with bandages. This is a neat and very convenient composition, that ought to be kept on hand through the winter. If this disease is not soon checked, it will run into another called the grease, which requires more particular attention.

THE GREASE.

This disorder is generally brought on by soft corns, want of proper cleaning, bad stable-management, hard usage, or an impure state of the blood. A table-spoonful of nitre and sulphur, in equal parts, given each day with his food, is calculated to prevent the grease and refine the blood.

Treatment.—When you first discover the horse's legs to swell after standing several hours, be careful to wash them clean with vinegar and water or soap-suds, every time he comes in, which may prevent or cure the complaint. If this should fail, some simple cooling ointment can be applied. If the disease is not soon removed, and *cracks* make their appearance, a common poultice, with

a few carrots well boiled and mashed, should be applied, which will generally effect a cure; yet, after a few days, when the cracks have healed, a thick flannel cloth should be bound round the affected part, and remain for four or five days. It will greatly assist the full recovery of the animal if, while under treatment, he be kept on green food, and little or no grain be allowed him. If he be able, he ought daily to be moderately exercised.

POLL-EVIL.

This disorder results from some contusion or injury about the head, which produces a swelling, that eventually breaks. When it first makes its appearance, blistering will greatly abate the inflammation, and *may* scatter it; but if this should fail, cold lotions, a moderate dose of physic, and bleeding, will usually effect the object. If the swelling still continue, it can be brought to a state fit for opening by warm poultices. After opening, it is important that the wound should be thoroughly cleansed before it is permitted to heal.

LAMENESS IN THE STIFLE.

The stifle is a very tender part of the horse, and very subject to injury; but it can generally be cured if taken in season. A horse that is lame in the stifle generally treads on his toe, and can not set his heel to the ground without great pain.

Remedy.—For merely a strain in the stifle, take vinegar and a small quantity of oil of spikenard and wormwood, and bathe while warm, holding a hot shovel near the affected part; this will soon contract the ligaments and effect a cure. But should the stifle be out of place, it will be necessary to bring it to its usual position by tying a rope round the foot, and drawing it back for two or three minutes, as much as the strength of one man will allow. This operation sometimes needs repeating two or three mornings in succession. It may be necessary to apply a stifle-shoe to the foot of the well leg, to cause the animal to stand on the lame foot for two or three days. After the above treatment, take white-oak bark, and the bark of the sumac, in equal quantities, and a small quantity of tobacco; boil them for one hour in

water, afterward adding a teaspoonful of cayenne pepper, and bathe the affected part as before. *The beast should not be used until perfectly well, as he will be subject to the same accident till thoroughly cured.*

HORSE-DISTEMPER, OR CATARRH.

This distemper usually attacks horses in the spring and fall. It first shows itself by discharges from the nose, a cough, difficulty of swallowing, soreness and swelling in the glands of the throat, and general debility. If it is attended to immediately, there is little danger; otherwise it often proves fatal. If the attack is not violent, thorough purging with bran-mashes may relieve him; but if the disease is very severe, bleeding, and afterward blistering, must be resorted to. The horse must be kept warm; and if the swelling does not subside, a mild poultice may be applied.

DIABETES.

This disease is very debilitating, and should be attended to as soon as discovered. The horse urinates in immense quantities, which is very little discolored; his thirst is very great; severe debility follows; and his appetite fails. This complaint is produced by either over-exertion, musty hay or grain, want of green fresh food, or an impure state of the blood arising from previous disorders.

Remedy.—Keep him in a warm stable; give him solid food, adding two ounces each of powdered chalk and salt every day; with a few turnips and carrots twice a day; and, generally, he will recover in a short time. Should this, however, fail, it will be necessary to physic moderately. If the disorder does not yield to this treatment, give the following every morning: 1 dram opium, $\frac{1}{2}$ oz. linseed oil (or $\frac{1}{2}$ pt. flaxseed); make into a ball, with sugar or molasses: and if the horse be costive, give a gentle dose of physic.

SLABBERS.

It is supposed that those weeds and plants that cause saliva are lobelia and spurge.

Symptoms.—A continual discharge of saliva from the mouth, which gradually produces languor and weakness

Remedy.—Keep the horse on dry grain and clean hay; and, if convenient, add a few turnip-tops, cabbage-leaves, or radishes, which will produce immediate relief. Give freely of salt, adding a little sulphur once a week.

SPRAIN OF THE KNEE OR ANKLE.

A horse that trots high is liable to sprain, or it may be produced by a kick from another horse, or by other accidents. The joint swells, and become inflamed. This is difficult to remove.

Remedy.—Take 6 oz. tar, 6 oz. spirits of wine or vinegar, 4 oz. lard; melt these together by a slow heat (being careful not to have them take fire), add flaxseed, to make it into a poultice, and apply it until the swelling is removed.

BRUISES AND BLOWS.

These are produced by accidents of various kinds.

Remedy.—If the bruise be not very severe, apply salt and water with wet cloths, for some time; or, if it be at hand, beef-brine is much more desirable and efficacious. A decoction of tansy and wormwood is likewise beneficial.

SWELLINGS.

It is difficult to give any specific remedies for swellings, as they are the results of such various causes; but the following mixture has been used with great success: When a swelling first appears, bathe it well with vinegar having 1 ounce of saltpetre dissolved in it, after which take 2 oz. extract of lead, 2 oz. spirits of wine or vinegar, 2 oz. spirits of sal. ammoniac, 5 oz. vinegar, and $\frac{1}{2}$ pt. of water; mix, and rub the parts well. If matter should collect (which can be ascertained by the touch), make an incision large enough to let it discharge freely, and apply some healing salve, and dress often.

WOUNDS.

If the wound be small, the sides ought to be brought together by adhesive plaster, if possible; if the wound be large, it should be immediately sewed up with a square-pointed needle and a waxed thread. Great care should be taken to put the needle in straight, one side

over against the other; draw the skin tight, and tie a knot; let the stitches be an inch or an inch and a half apart. No stitch should be taken near a joint, if it can be avoided, and all stitches ought to be taken out as soon as it will answer—at least in two days, unless the wound be very large. Stimulating or healing plasters ought never to be applied to wounds; but it is well to exclude the air as much as possible, which can be done by taking 3 oz. of beeswax and 6 oz. of lard, melted and applied, changing it daily. If a copious discharge takes place, apply powdered rhubarb every night. If proud flesh arise in the wound, when it is partially healed, take 1 dram red precipitate and 3 oz. lard, mix them *well*, and lay them on the proud flesh. This ointment may be used sparingly when proud flesh does not appear. Should the proud flesh not disappear in two days after using the above mixture, lay on a small quantity of blue vitriol, powdered, or apply a little oil of vitriol; should these all fail, as a last resort use a very little corrosive sublimate. It will greatly assist wounds to heal to wash them three times a day with weak soap-suds about blood warm.

To stop Bleeding.—Scrape the inner part of sole-leather very fine, and bind it close on the wound. Puff-ball or powdered charcoal is very serviceable. Cold water, also, is often used with great success.

Another Remedy.—When a wound is not sufficiently large to require sewing up, take 4 oz. blue vitriol, powdered, 2 oz. wheat flour, $\frac{1}{2}$ oz. vinegar, $\frac{1}{4}$ oz. oil vitriol, and a handful of fresh nettles, well bruised; make the whole into a paste. Let the wound be filled up with the paste, and let a bat of tow be bound strongly over it, which is not to be removed under twelve hours.

SPRING-HALT.

This lameness is confined to the hind legs, and shows itself by a sudden jerking of the legs upward when travelling. Occasionally both legs are affected in the same manner. Sometimes relief has been obtained by strong fermentations, applied, while hot, with woollen cloth. No *certain* cure has as yet been found, but, with careful usage, a horse may perform well for years.

DISEASES AND HURTS OF THE FEET.

Horses are oftener injured in the feet than anywhere else. Hurts are often received from the blacksmith; sometimes a nail with a flaw in it will cause a great injury. Again; occasionally a nail, from not being properly pointed, goes into the tender part of the hoof, which (although it may be withdrawn at the time) may occasion a lameness, the cause of which it is difficult to ascertain, as the blacksmith will not always own his fault. Sometimes lameness is occasioned by the hoofs being pared into the quick. No old stumps or pieces ought to be left in the hoof. Care should be taken to pare off the *fore-part* of the hoof instead of the *heel*, when shoeing; from a want of attention to this, tenderness of the foot and *gravel* often result. When the horse shows tenderness in his feet, examine carefully the cause; if it be the gravel, the hoof will need searching, and every particle of sand or gravel removed, or it will continue to operate until it may take months to cure him. After removing every gravelly substance, take common tar, adding a little lard, and apply it to the part affected, so as to preserve the place from further injury. Sometimes corns in the heel produce lameness; cut them out carefully, and dress the part with aquafortis.

HOOF-BOUND.

This appears from the hoofs being dry and hard, with strait heels, which pinch the quick and cause much pain. Pare the hoof thin, and open the foot near the hair (if the horse can be spared from work for a few days), and the hoof will spread sufficiently. In the meantime, keep it well oiled with goose or skunk's grease; after which, put on a thin shoe for two weeks.

CRACKED HOOFS.

This commences on the outside of the hoof, and progresses inwardly. When first noticed, rasp the hoof thoroughly, which will generally effect a cure. If it is deep, it must be thoroughly examined, and all dirt removed; after which take lint made of linen cloth, and balsam of fir, and fill the crack, keeping a flannel cloth wrapped round the fetlock, wet with vinegar.

THRUSH, OR FROG-AIL.

This is occasioned by long exposure to the wet, or standing for a length of time in wet or moist dung. It first appears by a discharge at the side of the frog; it should be attended to or it will injure the whole hoof.

Remedy.—Let the horse be kept in a dry stable, clean thoroughly the part affected, apply tar, a little warmed, twice a day, and let the animal be moderately exercised.

Wash to toughen the Hoofs.—Take a weak brine, and bathe the hoofs often; it will not only keep them from being tender, but it will also prevent their cracking, and allay any heat or fever a horse may contract by working hard in warm weather. The following is another wash which is used with great success: take 6 oz. tar, 8 oz. whale-oil, 4 oz. spirits of turpentine, 2 oz. lard; mix well, and apply to the hoofs three times a week. A little attention to keeping the stables clean, and occasionally examining the hoofs of horses, will prevent most of the disorders to which their feet are subject.

GALLED BACK.

The leaves of gypsum, mashed and applied to the part affected, is considered among the best of remedies. Another is, to take smartweed, bruised thoroughly, add chamber-lye or salt and water, and wash often. The liquid ought to be kept in a close iron pot, and applied cold. Another remedy: white lead, wet with new milk or cream, and applied—a small quantity at a time. Another: if the injury is very severe, and the skin is much worn, attended with swelling, bathe it with warm salt and water, or with warm human urine; this will, generally, soon abate the swelling. If you wish to dry it up at once, take powdered chalk, or the ashes of old shoes, and apply to the back every morning. If the part does not immediately heal, it may be necessary to give a dose of physic to purify the blood.

FEVERS.

It can easily be ascertained when a horse has a fever, by putting the hands to the nostrils, or by pressing the finger just back of the upper corner of the eye. The

pulse of a horse in good health is about forty to the minute. When it runs as high as sixty or seventy it denotes much fever. At this time avoid all stimulating drinks, feed light, and keep the horse quiet. If he manifest great thirst, make a weak tea of sweet-fern, clover, catnip, thoroughwort, or raspberry, and give it nearly cold. Should the fever not abate, give the following

Fever-ball.—Take of antimonial powder, tartarized antimony, and camphor, each 1 dram; nitre, castile soap, and aloes, each 2 drams: mix with molasses, make into a ball, and give it in the morning; and in six hours after give the following

Purgative Drink.—Take 4 oz. Epsom salts, $\frac{1}{2}$ oz. nitre, $\frac{1}{4}$ lb. coarse sugar, dissolve them in one quart of warm water, then add 6 oz. castor-oil; mix well, and give one gill, *blood-warm*, morning and evening, until a proper passage be obtained.

Powerful Mixture for Fevers.—If the fever be high, it will be necessary to bleed moderately; and three hours after give the following powders: 1 oz. tartar emetic, 2 oz. calcined antimony, 1 oz. calcined hartshorn; grind them, in a mortar, to a fine powder, and keep in a bottle well corked. Two drams will be sufficient for a dose, which, with 1 oz. of nitre, may be given three times a day, in a pint of warm gruel. If the fever be violent, and the horse in a raging state, $\frac{1}{2}$ an ounce of opium may be added to each dose of powders.

SCOURS.

Scours are occasioned by changing from dry to green food, a sudden change of the atmosphere, or from eating some poisonous plant. It is advisable not to check it for a few hours after its appearance, that the system may become thoroughly cleansed. Take 1 pt. rye or Holland gin, $\frac{1}{2}$ oz. laudanum, and $\frac{1}{2}$ oz. indigo; shake them well in a bottle, and give all at one dose. If the disease does not abate after 30 hours, take $\frac{1}{2}$ lb. mutton-tallow, 2 qts new milk; boil 15 minutes; add 1 oz. ginger and 1 oz. laudanum, and give after the horse has fasted three hours. Colts are often troubled with this complaint. One fourth of the above will be a sufficient dose for colts of one year

old; but the following is rather preferable: take 3 eggs, 1 teacupful of wheat-flour, 2 oz. coffee (boiled strong in 1 qt. of water); add all together, and give $\frac{1}{2}$ a pint each morning until a cure is effected.

WINDY COLIC.

Symptoms.—The horse is very restless, lying down and starting up again. When the pain is violent, he has convulsive twitches; his eyes are turned up, and his limbs stretched out, as if dying; and his ears and feet alternately cold: he falls into profuse sweats, and then into cold damps.

Causes.—This disease often proceeds from catching cold by drinking cold water when hot, and the perspirable matter is by that means thrown upon the bowels, which causes them to distend violently, and sometimes brings on an inflammation in the small intestines, when the body begins to swell, and the cure is despaired of.

Remedy.—Empty the straight gut with a small hand dipped in oil; this gives room for the wind to discharge itself, the suppression of urine is removed, upon which the horse immediately stales, and becomes much easier. If the horse be young and full of blood, take a quantity from the neck. When these purgative operations have been performed, the following may be given, as it seldom fails to give relief: 4 oz. tincture of senna, 6 drams tincture of opium, 1 dram oil of juniper, 8 oz. of juniper berries, bruised; put 1 qt. of boiling water on the juniper berries, let them stand a few minutes, strain it off, put all together, and give them to the horse.

THE DRY GRIPES.

Symptoms.—This disorder mostly proceeds from costiveness, and is discovered by the horse's frequent and fruitless attempts to dung, the blackness and hardness of the dung, the frequent motion of his tail, the high color of his urine, and his great uneasiness.

Remedy.—Take 4 oz. castor-oil, 4 oz. tincture of senna, $\frac{1}{2}$ oz. oil of juniper; give them all together, and then the following clyster: boil a handful of marshmallows and camomile flowers in a quart of water, then strain it off, and add two ounces of linseed-oil. If the horse do

not mend, repeat both the drink and the clyster. During this disorder the horse must not have any dry food; but boiled linseed, and scalded bran, with warm water to drink. Gentle walking exercise is a great means to cause the physic to work; but be careful of cold. Carefully avoid all hot, violent medicines, which always prove hurtful in every species of this disorder, and frequently fatal.

GRUBS.

Remedy.—Add a pint of strong vinegar to a cubic inch of chalk; when the effervescence ceases, drench the horse with the liquid from the bottle.

BLEEDING.

It is generally conceded that the best vein for bleeding horses is in the neck, particularly in affections of the head and neck, which is so well understood as not to need a particular description here. No certain rule can be given, as it must depend upon the disease and the condition of the horse. Let the blood flow into a pail, that the quantity may be ascertained. After bleeding, if the blood be taken from the head or neck, it is well to tie the horse's head higher than usual for a few hours. (For bleeding in the foot, see Founder.)

KEEPING HORSES CLEAN, CURRYING, &c.

The experiment has often been tried, of the benefit to horses from being well combed and kept clean. It has been found that a horse neglected as to cleanliness, will not be so well conditioned for either fatness or strength, though he may have abundance of food. Frequent combing and rubbing not only produce a healthy state of the skin, which is very conducive to a correct state of the bowels, but adds essentially to the appearance and activity of the animal.

REARING COLTS.

The raising of this kind of stock is rendered profitable where the right blood can be obtained. The colt requires but little attention after he is one week old. Until then, he is so feeble that it may be necessary to confine the mother to a limited pasture, as too much ex

ercise for the first few days greatly injures him. Judicious farmers confine the colt in the stable if the mare is obliged to perform a large day's travel; but care should be taken, when the mare returns at night with a bag distended with milk, that the colt be kept from her until three fourths of the milk has been extracted by hand, for, by remaining in the bag so long (especially if the weather be warm), it is rendered impure. When colts are five months old, they can safely be weaned, after which they will require fresh tender clover, and rowen. They need warm stabling for the first two years. If the breaking process is commenced carefully at two years old, it renders them the more valuable.

THE MULE.

THE great value of the mule for agricultural purposes has long been known and generally acknowledged. By those who have given this animal a trial, his decided superiority to the horse is universally conceded. The mule, it is true, does not possess the fineness, symmetry, elegance, or commanding action and appearance of the well-bred horse, but for strength, patient endurance of hard usage, slender pasturage, and privation, he is far better suited to the general uses of the farmer, than the horse possibly can be.

In the New-England states, where these hybrid animals were first introduced to any great extent, they were the offspring of such worthless progenitors that they never became general favorites. The breeding of mules, however, has been taken up by the western and southern farmers; and throughout the slave states, especially, where the stock is necessarily exposed to rough treatment, they are considered as an invaluable substitute for the horse. For the caravans that pass over the almost inaccessible ranges which form the continuation of the Rocky mountains, and the extensive and arid plains that lie between and beyond them, on the route to California, mules are the only beasts of burden used in these exhausting and perilous adventures. To sum up the

advantages of working-mules over horses, for farming purposes: they are more easily, surely, and cheaply raised; they are kept, after commencing work, for about half the cost of keeping horses; they are not subject to many of the diseases of the horse, and to others only in a mitigated form—and even these are easily cured in the mule; bleeding at the mouth will cure them of almost every disease, and by being turned out to pasture they will recover from almost every accident; a broken-winded one is scarcely ever known; their skin is tougher than that of the horse, consequently they are not as much worried by flies, nor do they suffer so much by the heat of summer; they attain an age twice as great, and their average working age is probably three times as great as that of the horse; the expenses of shoeing a mule do not exceed one third that of the horse, the animal being lighter, and his hoofs harder, more hairy, and so slow in their growth, that shoes require no removal, and hold on till worn out.

General Treatment.—In breaking mules they should be mated with a swift-walking horse. As before stated, mules are but little subject to disease, except inflammation of the intestines, or colic; and that is generally caused by the grossest exposure to cold and wet, or the excessive drinking of cold water after severe labor, while in a high state of perspiration. In severe cases of colic, a treatment similar to that prescribed for the horse, on page 30, is recommended. In using the medicines, care should be had to proportion the doses to the comparative size of the mule to the horse.

To feed mules with hard, dry corn, is liable to produce colic. Oats are much better feed in every respect, and may be given dry without danger, in any quantity, though it is better to grind, or at least soak them in water a few hours before feeding. Oats make tougher muscle and harder flesh to work on than corn. If corn is used, it ought to be ground with the cob, and mixed up with water, slightly salted, a day or so before being used. If it ferments previous to feeding, or if it can be boiled like mush or hasty pudding, so much the better as it then goes much farther, and is healthier for the an

imal. When mules are taken out to be fed, let them get a little cool before being allowed to drink; then give them a small quantity of water, say one or two quarts, and as they cool give them more, till they finally drink as much as they desire. If the water be very cold, a handful of hot wood-ashes should be thrown into the bucket before drinking—this is generally sure to prevent any ill effects. A gill of ashes should be given to each mule once a week in their feed. Ashes keep the system open, and kill worms and bots in the intestines. It would be better to stable mules, especially when feeding during very hot weather, in copious dewy nights, and in cold rainy weather. Their principal meal should be at night. During the long, hard-working days of the season, they ought to have two hours' rest at noon, and one to one and a half hours' rest in the shorter ones.

NEAT CATTLE.

It is universally acknowledged that neat cattle are among the choicest treasures of the husbandman; and in order to render them more truly valuable, a knowledge of their organization and of the manner of treating the diseases to which they are subject, ought to be possessed by every individual to whose care they are committed. In order to acquire this knowledge, it is not necessary to travel through a multitude of cumbrous volumes; but a sufficient amount of information is contained in this little treatise to give a general view of the subject. The writer will feel well repaid should he be the means of preserving property from loss, or of relieving and preventing, in some degree, the sufferings of animals that have no tongue to plead for themselves.

RULES FOR SELECTING A GOOD MILCH-COW.

Her head should be rather long and small; cheeks thin; muzzle fine; nostrils large and flexible; eyes mild, clear, and large; neck rather long, and *slim* near the head; horns long and small, and of an orange color; small ear, inside of a yellowish tinge; small breast; back level and



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broad, and straight to the rump; well ribbed; wide in the loin; flank low; thighs thin and deep; hind legs small, standing well apart; forelegs rather small below the knee, above the knee large; large teats, of a dark orange-color; bag, when empty, lean, soft, and long; large milking veins; hair short and thick; large hind-quarters; color brindle, bright red, dun, or a light brown.

MARKS OF GOOD WORKING OXEN.

It is well to give some attention to the breed of working cattle. A large share of the Devon and Hereford blood is very desirable. The animal ought to possess a long head and face; extended nostrils; the eye large, keen, and at the same time mild; ears large and thin; horns moderately long, well spread, and not too thick; the head somewhat elevated; neck not very long, full, well set, and moderately thick; breast full; shoulders broad and middling high set; straight back; well ribbed; forelegs large and straight; large knee-joint; hoof broad, and the claws, or toes, set *straight forward* rather than turning out. The most desirable colors are red or brindle, with bright glossy hair.

TO ASCERTAIN THE AGE OF CATTLE.

The animal is born with eight cutting teeth in the forepart of the lower jaw, and when about two years old the two middle ones fall out, and are succeeded by others; at three years, the two next to them; at four years, two more; and at five years the entire set of new ones appear. After the animal is five years old, judges can determine the age, with a good degree of accuracy, by observing the wearing down of the teeth; but it is a surer guide after that period, to ascertain the age, to examine the horns, as follows: a cow has a full horn at four years old, but it grows larger every year, and for every year's growth it leaves a wrinkle or ridge round the root, until the beast is twelve or thirteen years old.

TREATMENT FOR PRESERVING CATTLE IN GOOD HEALTH.

It is well to keep them housed in cold or wet weather, but they do not require the stable to be very warm, as

NEAT CATTLE.



by keeping them in barns that are very close, and the air confined or impure, their milk, as well as their health, is greatly injured. Cattle require a good supply of salt, which ought to be given them three times a week; and a full supply of pure water should always be within their reach, or they require watering at least as often as three times a day. Cattle, especially cows, ought never to be kept in a close stable with horses, as diseases are often communicated from one to the other. Nothing is more hurtful to cattle than for them to be stabled where the rain is dropping upon them. Those that have the care of cows can not be too careful that they are always milked clean; if this is not attended to the cow gradually dries up.

Before proceeding to speak of the diseases of cattle, and their treatment, a few suggestions regarding their age and size may not be improper. When administering medicines, the age and constitution of the animal are to be considered, for a strong and healthy beast can bear much more than a weak one. A beast under three years old is not to be treated like one of five or six years of age, for its bowels are tender. As for a bull of four years old, he is to be treated in the same manner as an ox of the same age. There are some very small specimens of cattle, whose strength and constitution are in proportion to their size, and they should be treated accordingly.

TO MAKE TAR-WATER FOR CATTLE.

Take 1 qt. of tar, put to it 4 qts. of water, and stir it well for 15 minutes; let it stand for $\frac{1}{2}$ an hour, and pour it off for use. Do not put water to the same tar more than twice, and give as hereafter prescribed.

PHYSIC.

Purgatives are among the most useful of medicines and, when properly administered, are of incalculable benefit to the husbandman in arresting and curing most of the diseases to which his cattle are subject. Great care should however be taken that the ingredients used are good, and that too large quantities are not given at one time.

PURGING DRINK.

Take 1 lb. glauher salts, 2 oz. powdered ginger, $\frac{1}{2}$ pt. molasses; put all the ingredients together, pour 3 pints boiling water upon them, and give the whole at once, at blood-warm temperature. Another: take 1 lb. Epsom salts, 2 oz. each of powdered aniseseed and ginger, $\frac{1}{2}$ pt. molasses; mix, and give in the same manner as the preceding. Another: take 1 pint of linseed or castor-oil, and give with warm water. Aloes are very extensively used for physic; 4 drams is considered a dose.

Purging drinks are good for inflammatory complaints, for jaundice, or for costiveness. They can be given moderately to old cattle once in six or eight weeks with much benefit.

BLEEDING.

Bleeding is necessary, and of great service, in all inflammations, fevers, bruises about the eyes, and sprains when accompanied with inflammatory symptoms. Great care and judgment are necessary in bleeding, lest it should be carried to excess. It is hazardous to bleed when the spirits are too much exhausted or weakened. It is most proper to bleed by measure; and experience has warranted the rule, that not more than two quarts should be taken away at any *one time*.

HOVEN, OR SWELLING OF THE BOWELS.

This disorder is a temporary one, and results from turning the cattle from short pastures upon wet and luxuriant clover, or other succulent food. It is not the clover that causes it, but too much herbage being thrown into the stomach, it heats and swells before it is thrown back again, and when the weight presses upon the arteries or blood-vessels, it causes a stagnation or stoppage of the blood, and unless relief be soon obtained the animal dies of suffocation.

Symptoms.—Great difficulty of breathing, the paunch is immoderately swollen, the animal exhibits signs of great pain, and in the latter stages the tongue protrudes out of the mouth; a trembling succeeds, and the beast dies.

Remedy.—If the attack is slight, give $\frac{1}{2}$ a teacupful spirits of turpentine added to $\frac{1}{2}$ a pint of lamp-oil; or if

these are not at hand, take 8 oz. of melted butter and give all at one dose. Other remedies: 1, give 1 pt. of lamp-oil; 2, give 2 qts. of strong brine; 3, give a tablespoonful of ammonia mixed with 1 pint of water; 4, give $\frac{1}{2}$ pt. of fresh weak lye from wood ashes; 5, give a teaspoonful of unslaked lime in 1 quart of lukewarm water, and give immediately; 6, give 1 pt. of rye gin or French brandy; 7, give 2 qts. of tar-water with 1 qt. of new milk; 8, give 2 qts. of strong thoroughwort tea with $\frac{1}{4}$ oz. of weak spirits of camphor. Another: if the attack is very severe, the first thing to be done is to let blood pretty freely; then give 3 gills of sweet-oil or $\frac{1}{2}$ a lb. of melted butter. If the beast be able to move, walk it about a little; if this does not give relief, as a last resort take a sharp penknife and make an incision on the left side, about $1\frac{1}{2}$ inches forward of the hip-bone, and back of the last rib. The cut should be $2\frac{1}{2}$ inches deep to reach the paunch. Be careful that you do not strike the loin, for when the animal is so much swollen, it is very deceiving. If the hole fills up, insert a goose-quill or tube, and, after the wind has escaped, apply a strong plaster of Burgundy pitch or common wax; and when the disorder has subsided, put a strong pin through the sides of the wound, and tie it up close with a strong thread. It is well to give a moderate dose of physic once or twice after the animal has recovered. When cattle have eaten poisonous substances, the stomach-pump can be used with great advantage.

Prevention.—When cattle are *first* put into a clover-field, they should not be allowed to fill themselves, especially if the dew is on, or if it is rainy weather, before being removed. If this is followed for a few days, no injury will result.

POISONS.

There are several vegetables that are poisonous to animals, such as fox-glove, wild saffron, deadly nightshade, poison hemlock, branches of the yew, wilted leaves of the wild cherry, laurel, crow'sfoot, and some others.

Symptoms.—Swelled and inflamed eyelids: body much swollen; dizziness, reeling, inaction, and drowsiness

Remedy.—Take 1 pt. gin and $\frac{1}{2}$ pt. molasses, and give at one dose. Another: take 2 oz. salts tartar and 12 oz Epsom salts, dissolve in 6 qts. of water, and give four times a day in four equal parts. Another: bleed moderately, and give 6 oz. castor-oil or $\frac{1}{2}$ lb. fresh butter in 1 qt. of warm water. Another: give 2 oz. castor-oil, and 2 oz. fresh butter, in 1 quart new milk. Another: give 1 pt linseed-oil and 1 pt. molasses. Give salt freely in all cases.

CHOKING.

Turnips and potatoes, and some other substances, often lodge in the throat of cattle, and are sometimes difficult to remove. When the obstruction is in the throat (after the head of the animal is secured, and precaution taken to prevent the arm being bitten by the animal) the hand can remove it, but when it is farther down, near the stomach, it can be removed by some one of the following

Remedies.—Give a pint of strong soap-suds, holding the head high. Another: sometimes by stopping the breath a moment by holding the windpipe, and starting the animal very suddenly, the obstruction will be carried down. Another: should the substance that causes the obstruction be of a soft character, and lay high in the neck, place a smooth block on one side of the throat, and strike gently on the other side with a mallet, by which it will be crushed, and dislodged. Unless great care be taken, the throat will be injured and inflammation produced. Another: as a last resort, take a small pliable willow, $\frac{3}{4}$ of an inch thick, and 4 feet long; round it smoothly at the end, and wrap tow or cotton firmly round it, about the size of a small hen's egg; wet it in soap-suds, and push it down the throat very gently, and the obstruction will be carried into the stomach. Care ought be taken that all hard substances should be cut fine, and the cattle not disturbed while eating.

COUGHS, COLDS, AND HOOSE.

These are common among cattle, and first show themselves by the eyes looking heavy, mouth dry, heaves in the flank, loss of flesh attended with a cough or wheez-

ing, and indisposition to eat; and often the dung and water fly from the animal in small quantities.

Remedy.—The disease will sometimes abate by keeping the animal warmly housed, and giving warm drinks made of catnip, sage, or pennyroyal, with a good supply of molasses added. Another: take 1 oz. elecampane, 2 oz. liquorice, 2 oz. honey, and $\frac{1}{2}$ pt. molasses; add 1 qt. warm water, mix, and give after 6 hours' fasting. Another: if the disease has been of long standing, or if it has fallen upon the lungs, and is attended with fever, in the first place draw 1 qt. of blood; after which take 4 oz. liverwort, 4 oz. cream of tartar, 2 oz. of nitre, and 1 oz. of saffron; boil them together 10 minutes, in 2 qts. of water, strain, and give warm, half at once, and half 8 hours after. Should the disease still continue, take 1 oz. saffron, 2 oz. liquorice-root, 1 dram squills, $\frac{1}{2}$ pt. molasses, and 2 qts. of water; mix, divide into 4 parts, and give one every 12 hours.

QUINSY.

At the beginning of this disease the beast slavers much, thrusts out its head, and appears languid. Let the animal be brought into a warm stable, and the glands of the throat rubbed with the following ointment: equal parts of spirits of turpentine, linseed-oil, and hartshorn. It ought to be applied four times a day. If it is necessary to open the swelling, make a wash of 1 oz. alum and $\frac{1}{2}$ oz. camphor, and occasionally wash the wound until it well.

WOUNDS.

Much depends upon the nature of the part where the wound is received. If it is in a fleshy part, endeavor to keep the wound sufficiently open to allow any matter that may collect to escape; if it is a bony part that is injured, keep the wound together by adhesive plasters. Slight wounds in cattle are healed very readily by applying the yolk of a fresh egg and turpentine twice a day. Another: take 4 oz. linseed oil, 3 oz. fine salt, $\frac{1}{2}$ pt. molasses, 1 oz. copperas; boil 10 minutes, let it stand until nearly cold, add 3 oz. turpentine and $\frac{1}{2}$ an oz. oil of vitriol; make the whole into a salve, and bind on a

small quantity at a time, changing it daily. When a wound has been a length of time in healing, proud flesh will sometimes appear. This can be eaten off with a very small quantity of red precipitate or blue vitriol.

Maggots in Wounds.—Wash the wound with weak soap-suds, and apply tar and lard, in equal quantities, keeping the wound from exposure to the weather.

STAGGERS.

This disease is most common in the spring to cattle that have been kept poorly during the winter.

Symptoms.—Drowsiness, inflamed eyes, head hanging down, and reeling.

Remedy.—Give a thorough dose of physic, and injections if necessary. (See staggers in horses, p. 21.)

BLOODY MURRAIN.

Cause.—Intelligent men widely differ as to the cause of this disease. It is, however, very certain, that the following are among the most prominent, viz.: bad water; sudden change of food, from green to dry; feeding in low, damp, cold, meadows and clay lands. In examining cattle that have died from this disease, their liver has been found to be perforated by worms resembling the common leach that is found in some swamp-lands.

Symptoms.—Loss of appetite; slight cough; heaving of the flanks; dulness of the eyes; coldness of the horns; shaking of the head; partial deafness; tenderness over the loins; stupidity; great debility; running at the eyes and nose; slight fever; nauseous breath, and sometimes small eruptions on the skin; staggering when walking; constant discharge of green, black, and sometimes bloody matter from the bowels. If not relieved soon, the animal discharges blood and water from the mouth and nostrils, reels, falls, and dies.

Remedies.—When the disease first appears, remove the animal from the rest of the stock (as this disorder is contagious) to a cool dry stable. Take 1 lb. Epsom salts, dissolve and give them in warm water. Take 3 pts. blood from the neck; rub well with warm water and vinegar. If the physic does not operate, give an injec-

tion of 2 oz. of linseed oil, 2 drams saltpetre, and 1 quart warm water; mix, and use while warm. If the bowels are now open, give $\frac{1}{2}$ pt. of linseed oil. Should it be desirable to stop the purging, take $\frac{1}{2}$ oz. ginger, 3 oz. powdered chalk, 1 oz. laudanum, and give in 1 qt. lukewarm water. While the animal is recovering, give stimulating drink occasionally. Let it run in a dry pasture. Another: At its first attack take away 2 qts. of blood; then give $\frac{1}{2}$ a teacupful of lard, and the same quantity of fine salt, in warm water. Another: melt 1 teacupful of lard, add 1 oz. ginger and 1 gill of turpentine, and give while warm, followed by 2 quarts of warm water. Another: take a teacupful of cedar berries, steep $\frac{1}{2}$ an hour, add 1 pint of molasses, and give while warm.

As this is among diseases that are difficult to cure, it may not be amiss to make the following suggestions by way of prevention: Give, occasionally, tar-water, or put tar in the bottoms of troughs where the cattle are yarded. Salt often, adding a little lime, sulphur, and ashes.

RED WATER.

Some of the symptoms of this disease, and some of the remedies for it, are similar to those under the head of bloody murrain. Cows are subject to it soon after calving; or it may be produced by injuries near the loins or kidneys, or by sudden changes from heat to cold.

Symptoms—A slight attack of the dysentery, and a discharge of bloody urine, which is soon followed by red water, chills and fevers, hard breathing, dulness, and straining to discharge urine, attended with great debility.

Remedy.—Take away 2 qts. of blood, and give physic as prescribed in the last disease; and likewise give injections if necessary, to bring the bowels to a proper state. Another: after bleeding as above, give 4 oz. Epsom salts, 2 oz. ginger, $\frac{1}{2}$ oz. saltpetre, 3 oz. linseed oil, in 2 quarts of warm water, and keep the animal housed for two days. Another: when the disease assumes a chronic form, give $\frac{1}{2}$ pint linseed oil, 2 oz. ginger, and 1 pt. of molasses, at one dose, followed by moderate draughts of warm water. Another: take 4 oz. gum arabic, 2 oz

castile soap, $\frac{1}{2}$ oz. balsam copaiva, 4 oz. Epsom salts, and $\frac{1}{2}$ pt. molasses, and give with weak rhubarb tea.

LICE.

As lice do not immediately endanger the life of the beast, it is often neglected, much to the injury of its owner, for it is almost impossible for an animal to thrive while thus afflicted.

Remedy.—Sprinkling snuff moderately on the animal will generally effect a cure. Another: take 2 oz. tobacco-leaves, boil in 2 quarts of water, and apply cold; this, however, is not considered as safe for the animal, as fresh buttermilk applied lukewarm. Another: take water in which potatoes have been boiled, add 2 oz. melted lard, and rub over the beast. Another: any kind of fish oil or lard well applied as above. Another: take equal parts of rye whiskey and warm water, and apply as above.

FEVER.

Cattle are more liable to be attacked with fevers, by the sudden changes in the atmosphere, in the spring and fall, than at other seasons of the year. Too much care can not be taken with *young* cattle, especially, that they be not exposed to storms and *severe cold*.

Symptoms.—Swelling and redness of the eyes, pulse quick, heat at the root of the horns, cold at the ends of the ears, dryness of the nose, dulness, and poor appetite.

Remedy.—Always bleed moderately in its earliest stages, but never let blood after the fever has progressed two or three days. If the fever does not immediately abate after bleeding, give $\frac{3}{4}$ lbs. Epsom salts, dissolved in warm water; should this not operate within half a day, give an injection of soap-suds and $\frac{1}{2}$ an oz. linseed oil; if this treatment does not bring the bowels to a proper state, give small doses of physic every 12 hours until it operates.

INFLAMMATION OF THE STOMACH.

This is produced by changing suddenly from dry to wet or green food, or by eating green corn and noxious weeds.

Symptoms.—Restlessness, lying down, soon getting up again, voiding water often, and wildness and redness of the eyes.

Remedy.—Purge freely with castor-oil, melted lard, Epsom salts, sulphur, or linseed oil; give the usual quantity.

INFLAMMATION OF THE BOWELS.

This is produced by the animal being too high fed, and want of exercise, or in going into the water after being over-heated or greatly fatigued, or a very sudden change of the atmosphere from heat to cold.

Symptoms.—Great costiveness, mouth and nostrils very hot and dry, fever, restlessness, and eyes inflamed.

Remedy.—Bleed 2 quarts, if the attack is very severe; or sometimes an active dose of physic will effect a cure. Should the physic not operate in half an hour, give an injection, and continue to give small doses of physic until it operates; after which feed on light food (such as bran) for 24 hours.

INFLAMMATION OF THE BOWELS.

Causes.—This is caused by being exposed to storms, great changes in the atmosphere, or being over-driven or over-worked and afterward lying on damp ground and taking cold.

Symptoms.—Discharging from the nose, cough, heated breath, coldness in all the extremities, languor, and drowsiness.

Remedy.—As soon as the disease shows itself, bleed 3 quarts; and in 6 hours give a small dose of physic, and give light food for 3 days. Another: after bleeding, give 1 pt. linseed or castor-oil, and feed on wheat or rye bran, giving warm drinks made of flaxseed, ginger, and molasses. Another: lessen the quantity of blood by frequent bleeding, by which the great efflux of blood upon the temporal artery may be lessened; take $\frac{3}{4}$ lb. glauber salts, 1 dram tartarized antimony, 2 drams camphor, $\frac{1}{2}$ a pint molasses, adding 3 pints boiling water, and give blood warm.

THE FRENZY, OR INFLAMMATION OF THE BRAIN.

Causes.—This is a heavy disorder, occasionally attacking cattle that are in high flesh, and usually in the heat of summer, and is occasioned by either rich food or heat of the sun, which induces a rush of blood to the head; or by wounds or contusions in the head, attended with violent inflammations.

Symptoms.—Acute fever, disturbed and frightful countenance, small signs of madness, trembling and staggering, loss of appetite, deafness, and partial blindness, and unless relief is obtained, the animal soon dies.

Remedy.—House in a dark stable, away from noise; bleed freely, which repeat, if necessary, in 12 hours; take 1 oz. jalap, 1 oz. asafœtida, 1 dram calomel, 2 oz. castile soap (cut fine); mix with 1 pt. of molasses. This is a powerful dose, but it will answer to give it at once to a large beast. When recovering, beware of over-exertion or solid food for three days.

MADNESS.

Cause.—This is occasioned by the bite of a rabid dog. It may sometimes be cured by cutting out all the flesh adjoining the wound, and causing it to bleed as much as possible, and applying lunar caustic, or chloride of lime, or potash. There is, however, no certain cure for the malady; therefore, when once the strong symptoms of the malady appear, it will be a mercy to kill the animal.

Symptoms.—Saliva running from the mouth, loss of appetite, eyes red and weeping, continual voiding of urine and dung, extreme thirst in its latter stages, terrible agony, attended with weakness and reeling, which continue till death.

Caution.—Great care should be taken while cutting out the wound that none of the poisonous matter be communicated to the operator, and that the knife be properly cleaned.

BOTS AND WORMS.

These are very seldom found in cattle, yet they have been known to catch them from horses, when confined

in the same stable with them. The treatment in such cases should be much the same as that pursued toward horses, only the doses should be smaller.

COLIC.

Cause.—This results from drinking very cold water, and other causes.

Symptoms.—Great restlessness, constantly lying down and getting up again, eyes red and watery; without thirst or fever.

Remedy.—Take 2 qts. water, add 1 oz. ginger, 1 gill rye-gin, $\frac{1}{2}$ pt. molasses or $\frac{1}{2}$ lb. coarse brown sugar, and give while moderately warm. Another: take 1 pt. of linseed or castor oil, and give with warm water as above. If this does not relieve the animal, give active injections, as before described. Another: take 3 drams castile soap, 1 dram ginger; boil 10 minutes in 1 qt. water, and give when lukewarm.

YELLOW, OR JAUNDICE.

It is difficult to detect the early approach of this disease, as it is not attended with much pain or striking symptoms. It comes on very gradually, and is occasioned by an affection of the liver, or gall stones, which accumulate in too large numbers to pass freely through the canal which leads into the larger intestines. It may likewise be occasioned by the altered quality of the bile, or by high food and little exercise.

Symptoms.—Dulness, yellowness of the eyes and skin, loss of appetite, high color of the urine, dry hard skin, great languor and drowsiness.

Remedy.—Take 2 oz. aniseseed, 2 oz. tumeric root, 1 oz. salt tartar, 1 oz. castile soap, 1 gill molasses; add 1 qt. boiling water, and give blood-warm. Another: bleed moderately, and if the animal is costive, give a full dose of physic; after this has operated thoroughly, astringents may be given, such as drinks made of wild cherry bark, birch bark, or white-oak bark, with $\frac{1}{4}$ oz. laudanum added. As the beast is recovering, give warming drinks made of gentian root, ginger, pennyroyal, sage, or balm

DYSENTERY, DIARRHŒA, OR LOOSENESS.

This is very common among cattle, and weakens them very much. There are many causes operating to produce this complaint, such as exposure to severe storms, change from dry to green food (especially clover), drinking lime-water, pasturing in low, marshy lands in the spring or fall, long fatiguing journeys, over-exertion, eating unripe fruit in large quantities, or poisonous plants, and sometimes from injuries about the abdomen.

Symptoms.—It is soon discovered by the dung, or by great efforts to void it, which indicates the first stages of the disease. It ought not to be checked under twelve hours from its commencement, if produced from over-eating green food. As the disease advances, the discharge becomes slimy, nauseous, mixed with mucus or the inner lining of the intestines, and often tinged with blood. The digestive powers do not discharge their functions, as the food passes off only in part digested. If the attack is only slight, it may pass in a short time without medicine, but it is necessary to see that the disease does not become seated, as it will then be more difficult to cure.

Remedy.—Take 2 qts. of blood from the neck; after which give $\frac{3}{4}$ lb. Epsom salts, with 1 oz. senna (or 1 oz. caraway-seed steeped 15 minutes), add 1 qt. warm water, and give in a lukewarm state. If this does not relieve the animal within 6 hours, take white-pine bark, white-beach bark, and white-oak bark, make a strong tea, adding 2 qts of new milk, and give *blood-warm*. Another: if it is not convenient to bleed, and the disease is violent, take white-pine wood, burn it to a coal, then pound 4 oz. fine, add to it $\frac{1}{4}$ lb. lard or fresh butter; mix the whole with 2 qts. new milk, and give warm, in 4 equal parts, at intervals of 12 hours. Another: take 2 oz. laudanum, 2 drams ginger, $\frac{1}{2}$ oz. powdered chalk; dissolve in 1 qt. new milk, and give warm after the animal has fasted 8 hours.

DIURETICS.

Diuretics are often productive of good, causing a copious flow of urine, calculated to allay or prevent fevers

and other disorders. The following are generally used for remedies : rosin, gin, cream of tartar turpentine, tobacco, saltpetre, carrots, turnips, apples, potash, pumpkins, and green corn-stalks. Care should be had that too large doses are not given.

BLACK TONGUE.

This is not a very common disease, but it is difficult to cure unless taken in its first stages. None pretend to account for the cause of this complaint ; it generally rages in very cold weather, and among cattle that are poorly fed.

Symptoms.—Dizziness, dulness of the eyes ; the tongue is very much swollen and of a black color ; it continues to swell until it cracks, and the disease extends to the vital parts, and the animal soon dies. Much can be done by way of prevention. When it appears in the neighborhood, cattle ought to have their bowels kept open by gentle purgatives, and kept apart from those that are diseased, and fed twice a day on turnips or potatoes.

Remedy.—When it first makes its appearance, put the beast in a warm stable ; take the inside bark of white-pine, boil it $\frac{1}{2}$ an hour, add 2 oz. cream of tartar, and wash the mouth freely ; take a small quantity of blood from the neck, and give $\frac{1}{4}$ lb. Epsom salts ; in 2 hours give 2 qts. weak tar-water, and repeat it every 8 hours.

HORN-AIL, OR HOLLOW HORN.

This disorder usually attacks cattle in the spring, after a severe winter, and likewise those that are in low flesh, or those that have been over-worked and exposed to severe storms, or reduced by other diseases, or predisposed to take it.

Symptoms.—Eyes dull and discharging yellow matter, dizziness, loss of appetite, shaking of the head, bloody urine, coldness of the horns, stupidity, and great debility.

Remedy.—When the symptoms first appear, house in a warm stable, rub spirits of turpentine and vinegar, in equal parts, round the roots of the horns and back of the ears ; take a double horse-blanket and girt the animal ; bleeding is sometimes resorted to, but it is very dangerous and often fatal ; take 1 oz. saltpetre, 4 oz. Epsom

salts, 2 oz. cream of tartar, dissolve in warm water, and give all at one dose, and repeat it night and morning if necessary. If the above does not operate, take 1 pt. of flaxseed, boil in 3 pts. water for 20 minutes, add 1 pt. new milk, strain, and add $\frac{1}{2}$ pt. linseed or castor oil, and 2 tablespoonfuls of fine salt, and give as an injection. Another: Give a moderate dose of physic, then take 1 gill fine salt, 1 teaspoonful of black pepper, and $\frac{1}{2}$ pt. of cider vinegar, and pour into each ear, keeping it in for a moment. Warm clothes wet in vinegar, applied to the horns for a length of time, and 1 oz. black pepper, and 2 tablespoonfuls of soot, have been found of great benefit.

HOOF-AIL.

Cause.—This is produced by driving cattle long journeys on hard, gravelly, or clayey roads, by letting them stand in the water while warm, and by other causes.

Symptoms.—Swelling above the hoof and between the claws, which occasions lameness, attended with fever.

Remedy.—Take $\frac{1}{2}$ pt. vinegar and strong soap-suds, and wash thoroughly; take fresh butter or lard, adding 2 grains of corrosive sublimate, and apply to the affected part, and put over this a thin wax plaster to keep the beast from licking it, as the corrosive sublimate is a deadly poison. Applying a solution of blue vitriol or opodeldoc to the hoof, after it has been well cleaned, will often effect a cure. Another: apply a poultice made of boiled turnips and lard.

MANGE, SCROFULA, SCURF, OR SCAB.

This disorder is not very common, yet it is dangerous if neglected. It is a cutaneous disease, caused by an impure state of the blood, arising from various causes.

Symptoms.—In the first stage of this disorder the skin is hot and dry, attended with intense itching, which will manifest itself by the animal rubbing his head and neck against the fence or stable; the next stage is the appearance of scabs, or small ulcers on the surface of the skin; small insects (or animalculæ), in great quantities, can be seen with a glass, which are the cause of the uneasiness of the animal.

Remedy.—Let the beast be separated from all others (as this disorder is contagious); give cooling, opening medicines, as the following: take 2 oz. cream of tartar, 1 oz. nitre, 4 drams calomel, and $\frac{1}{2}$ pt. molasses, and give in 3 equal parts within 24 hours. Another: take a card and carefully remove any loose scurf, then give the physic prescribed in the last article; after this, make an ointment of $\frac{1}{2}$ pt. olive-oil, $\frac{1}{2}$ pt. spirits of turpentine, $\frac{1}{2}$ lb. sulphur, $\frac{1}{4}$ lb. hog's lard, and rub the parts affected every other day. Another: after moderately purging, take $\frac{1}{4}$ lb. lard, 2 oz. sulphur, $\frac{1}{2}$ pt. tar, $\frac{1}{2}$ pt. castor or linseed oil, make into an ointment, and apply to the parts affected.

LOSS OF CUD.

This is sometimes occasioned by previous disease, which leaves the animal debilitated, or by indigestion or sudden injuries. Where there is but little fever, give a small dose of salts and ginger, or take $\frac{1}{2}$ pt. gin and 2 oz. ginger; make a cud of boiled clover, or take a cud from another beast and divide it. Afterward make a decoction of oak bark, hoarhound, and balm, and give for one day with dry food.

TAIL DISEASE.

This is a rotting or drying up of the end of the tail in young cattle. By cutting off the tail just above the decayed part and letting it bleed freely, or by slitting the end of it, the disease will generally be removed.

BLACK-LEG.

This malady is known by several names, such as black-blood, blood-striking, and blind-blood. It generally attacks young cattle that are kept high, or it is caused by a sudden change from poor to rich food, or eating unwholesome plants.

Symptoms.—In its first stages the eyes are red and protruding, with high fever, wildness, weakness and staggering of the hinder parts, starting suddenly, lying down and rising again quickly. As the disease advances, the breath is short, producing heaving of the flanks, legs

swell, ulcers appear, and bloody flux sets in, which soon destroys life.

Remedy.—As soon as the disease is apparent, house the beast in a cool stable and bleed 2 quarts; foment the parts affected with salt and vinegar; take $\frac{1}{2}$ pt. linseed or castor oil, 1 oz. ginger, 1 dram aloes, and give with 1 qt. warm water. If the physic should not operate within 6 hours, give injections, as before described. If the medicine operates properly, then give cooling drinks made of 2 drams saltpetre, 1 dram tartar emetic, 1 oz. cream of tartar. As the animal is recovering, give him tea made of flaxseed, raspberry, or sweet-fern.

Caution.—Never bleed except in the first stages of the complaint, and feed on bran or other light food during the continuance of the disease. Occasionally rubbing the limbs that have been affected, with a mixture of salt, vinegar, and mustard, has been found to be very useful in assisting the animal to regain his wonted strength.

OVER-HEATED AND OVER-WORKED.

Oxen are often overworked in warm weather by intrusting them to the care of inexperienced persons. The injury thus received is greater than is generally supposed, as it is difficult ever to restore the animal to his original strength and value.

Caution.—Never let the animal have access to cold water until he is perfectly cool.

Remedy.—Give at once to each ox from $1\frac{1}{2}$ pints to 1 quart (according to the size of the animal) of St. Croix rum, or the same quantity of gin, New-England rum, or whiskey, or a little less quantity of French brandy, followed by 2 quarts warm water, in the meantime driving the animal around the yard moderately, for a short time, when he will generally be out of danger. A mild potion of physic ought to be given soon after. Another: if ardent spirits are not at hand, take 1 oz. cayenne or black pepper, 1 oz. ginger, and $\frac{1}{2}$ pt. molasses; mix with 1 qt. warm water, and give, keeping the beast moderately moving. Where oxen have been over-drawn with out heating, to 3 oz. castile soap dissolved in warm water add $\frac{1}{4}$ oz. ginger and 1 qt. new milk, and give at one dose

RUPTURE, BREACH, OR HERNIA.

This is occasioned by some external injury, by which the intestines protrude through the lining of the abdomen, although the skin may not be broken.

Treatment.—The animal must be cast, and the feet confined; then cut the skin somewhat larger than the rupture, taking care that the protruding intestines are not injured; return the intestines thus extending, carefully sewing the inner rupture; after which sew up the outer skin, and take salve of mutton tallow and beeswax and apply a little to the wound. If the injury be severe, draw a bandage close round the animal, and let it remain four or five days; or apply a large adhesive plaster of Burgundy pitch or common wax, and let it remain one week.

WARTS.

Remedy.—Confine the animal, lance the warts, apply blue vitriol in small quantities, and bind on a small piece of raw fat pork for two days. Another: take green turnips or carrots, with fine salt, and apply for two days. Another: take a fine silk or linen cord, and tie closely round the wart, and it will fall off in three or four days. Afterward apply strong alum-water occasionally for two days. Another: the bark of the common willow burnt to ashes, mixed with strong vinegar, and applied to the parts, will usually remove all warts and other excrescences.

WENS.

Remedy.—If the wen is troublesome or growing rapidly, cast the animal, and carefully cut it out. After letting it bleed freely (say 1 qt.), take a mixture of fine salt and powdered rosin, in equal quantities, mixed with a small quantity of tar-water, and apply to the wound, then sew up the skin, taking care that the stitches on each side are set opposite each other. Wens have been cured in their first stages by applying warm brine repeatedly.

Another: make a very strong brine, dip in a piece of flannel three times doubled, and apply it to the wen; keep it constantly wet day and night, until suppuration takes place.

BRUISES AND SORES.

Remedy.—Over the whole sore or where the part is bruised, or where there is a tendency to suppuration, a poultice should be applied, and kept on with bandages. The poultice may be made of any kind of meal, fine bran, bruised flaxseed, or of mustard, turnips, carrots, &c. Another: take 1 qt. of wheat or rye bran, pour on a sufficient quantity of boiling water to make a thin paste; to this add enough of flaxseed powder to give it a proper consistence. This poultice may be kept on as long as required, changing it twice a day. After removing the poultice, cleanse the wound by rinsing it with lukewarm water once a day; after this, apply some mild ointment. (See next article.)

Ointment for Wounds, Bruises, and Sores, in Cattle.—After poulticing (as above described), and the bruise puts on a healthy or reddish color (not black or bloody), apply an ointment made of tallow, linseed oil, beeswax, and lard, proportioned to the consistence of butter; spread the ointment on linen cloth, and confine it to the affected part, by a *bandage* if possible, as a string is calculated to injure the tender flesh. If the discharge is not great, it need be changed only once a day. Another: take 4 oz. castile soap, 2 oz. camphor, 1 pt. alcohol or brandy, and apply twice a day. Another: take 2 tablespoonfuls fine salt, 3 do. of linseed oil, 1 pt. molasses, 1 oz. copperas, 3 oz. white vitriol, $\frac{1}{4}$ lb. lard; melt over a slow fire, *and use moderately*. Another (this is well adapted for strains as well as swellings): mix 1 pt. vinegar, 2 drams sugar of lead, 1 oz. laudanum, $\frac{1}{4}$ lb. lard, and apply twice a day.

STROKE OF THE WHIP IN THE EYE.

Remedy.—Make a weak decoction of tobacco-leaves and inject into the eye. Another: if the eye be inflamed, take $\frac{1}{2}$ oz. sugar of lead, 1 dram copperas, 20 drops laudanum, 1 pt. water; mix, and use once a day till cured.

CHAFE IN THE EYE.

Remedy.—Take 1 dram white copperas, and 1 dram sugar of lead, and blow through a quill into the eye of the animal; do not repeat it under three days.

FILM ON THE EYE.

This may be occasioned by some injury not noticed at the time, producing partial blindness. A film can be prevented, taken in season, by applying coarse brown sugar, dissolved in water, to the eye three or four times; molasses, also, is sometimes used.

Remedy.—Make a weak decoction of tobacco-leaves, adding molasses, and apply several times to the eye.

WEAK AND INFLAMED EYES.

This complaint results from the animal taking cold, and from various other causes. Wash them with a tea made of raspberry-leaves and sassafras bark, adding a small quantity of castile soap. Apply it cold.

HIDE-BOUND.

Symptoms.—The animal's hide is stiff, and adheres to the flesh. It becomes poor, walks stiff in its limbs, its eyes look dull, and it loses its appetite.

Remedy.—Take 2 oz. allspice, 2 oz. ginger, 2 oz. mustard, 1 pt. molasses; mix with 2 qts. warm water, and give in 2 doses, night and morning, after the beast has fasted for 4 hours. Another: take 4 oz. hoarhound, 4 oz. spearmint, 1 oz. rue; boil 10 minutes in 3 qts. of water, and give 1 qt. at a dose, at intervals of 6 hours each, and repeat, if necessary, weekly. Another: take balm, rue, saffron, and horse-radish, in equal parts, and make a strong tea, and give 1 qt. daily.

FEEDING OXEN.

Working oxen ought to be fed regularly, and worked uniformly. Have the yoke of sufficient length, and the bows to fit. Oxen that are worked constantly ought to have at least 2 quarts of meal each day, and be salted often.

SHOEING OXEN.

Oxen that are worked on a farm, will not need shoeing in summer unless they are very large, or unless the farm is very rocky; but those that are used for travelling on hard or gravelly roads, ought always to be shod with broad shoes, extending three eighths of an inch back of the heel on the fore-foot. Care should be taken that the ox is not strained while shoeing.

SORE NECKS IN OXEN.

This is caused by using yokes that do not fit the neck, or by working the oxen in wet weather. It can be prevented by using good yokes and applying oil or lard to the neck in stormy weather.

Remedy.—Use ointment made of lard and beeswax ; or make a strong wash of white-oak bark, and apply it night and morning.

CURRYING CATTLE.

More advantage results to cattle from currying and carding than is generally supposed, especially to *working* oxen. It not only produces a healthy state of the skin, by keeping the pores open, but it adds greatly to the appearance and activity of the beast.

LOCKED JAW.

This is caused by running a nail into the foot, or by other injury to the nerves, or by a sudden chilling of the blood after being over-heated.

Symptoms.—Attempting to eat, trembling, head raised and moving from side to side, no disposition to ruminate.

Remedy.—Dash a large quantity of cold water over the animal, repeating every 4 hours, keeping the beast moving about. Another: bleed very freely, and follow by a moderate dose of physic. Another: apply castile soap and opium, warm, to the wound that causes the difficulty, and cast 8 or 10 pails of water over the animal, after which bind on several blankets, and give warm drinks.

STINGS OF HORNETS AND BEES.

Remedy.—Dissolve salt in vinegar, and bathe for 15 minutes.

BITE OF POISONOUS SNAKES.

Remedy.—Cleanse the wound thoroughly with strong soap-suds, then apply a mixture composed of $1\frac{1}{2}$ oz. harts-horn and 1 oz. olive-oil, every 4 hours for 1 day ; at the same time administer a large dose of physic.

ULCERS.

It is difficult to distinguish between ulcers and other swellings, until they break or are opened. It is better to

let an ulcer break of itself, after which take castile soap-suds, warm, and cleanse it carefully and thoroughly poultice for one day with boiled turnips or carrots; then use a wash made of 1 oz. spirit of turpentine, 2 oz. camphor, 2 oz. hartshorn, and 2 oz. vinegar, well mixed.

TREATMENT OF COWS.

A cow may have her first calf at about three years old, and should be *dried up* 8 or 10 weeks before calving, when the amount of nourishment should be lessened, especially of potatoes and other green food, which is calculated to induce milk to collect largely, producing a swelling or caking of the bag.

MILKING COWS BEFORE CALVING.

This sometimes becomes necessary from the high feeding of the cow. If the bag becomes distended and hard, it will require to be milked once a day, but never draw out more than half the milk at any one time.

MANAGEMENT OF COWS AT CALVING.

As the time of calving approaches, it will be necessary to watch her, as she will stray away as far as possible. Turn her loose into a roomy stable or enclosure, by herself, and let her not be disturbed, and she will generally get along without assistance.

TREATMENT OF COWS AFTER CALVING.

If the cow has been high-fed, a small dose of physic can be given. Feed on bran or light food for 2 or 3 days, and give warm drinks for a short time. When a cow becomes so weak that she can not rise, she ought to be assisted for a few times; and if a sacking can be placed under her, and fastened to the sides of the stall, and remain for 2 or 3 hours, it will greatly assist her. Cattle doctors are not at all agreed whether it injures the cow to eat the cleanings.

TREATMENT OF COWS THAT WILL NOT OWN THEIR CALVES.

Let the cow remain for 12 hours without being milked, then milk her say one half dry, and it will relieve her so much that if the calf is put to her a few times it will effect the desired result.

MILK FEVER.

The milk fever is a very common complaint with cows at the time of calving, especially with those that have been well kept. Although this is not immediately dangerous, yet it requires attention. It usually makes its appearance within three days after calving.

Symptoms.—Swelled and inflamed udder, failure of appetite, wildness of the eyes, mouth dry and feverish, general debility, restlessness, and skin dry and hot.

Remedy.—If the cow is in high flesh, take away 4 qts. of blood, and in 4 hours give $\frac{3}{4}$ lb. Epsom salts and 1 oz. sulphur; if this does not operate within 12 hours, give half the above dose. Another: bleed 3 quarts, and give $\frac{1}{2}$ lb. Epsom salts, with $\frac{1}{2}$ pt. linseed oil.

SORE TEATS.

Remedy.—Bathe the teats with weak soap-suds, then apply cream, new milk, or goose-oil, night and morning. Another: bathe with warm water, and take equal parts of beeswax and lard, or fresh butter, and anoint the parts. Another: If the complaint is very severe, bathe with tea made of white-beach bark, barberry-bark, and alum-water, after which apply fresh butter.

GARGET.

This is a disease confined to the bag or udder, producing inflammation which, if not soon counteracted, renders the bag tender, with large bunches rising on the sides. This is oftener found in young than in old cows, and it is generally the result of high-keeping, *taking cold*, or an impure state of the blood.

Remedy.—Bleed freely, and give $\frac{3}{4}$ lb. Epsom salts with 1 gill linseed oil, followed with warm drinks, after which take $\frac{1}{4}$ lb. cream of tartar, dissolved in water, and apply with a linen cloth to the udder. Another: after bleeding and physicking as above, take scoke-root or pokeweed-root, boil 15 minutes, and apply to the udder nearly cold. Another: take 1 oz. saltpetre, 1 oz. tobacco, boil 10 minutes, and apply to the udder.

CAKED BAG.

This is caused by the cow taking cold or going too long without being milked, and by other causes.

Remedy.—Take 2 qts. horse-radish, cut fine, and add $\frac{1}{4}$ lb. ginger; feed 1 pt. each day; with bran, meal, or potatoes. Another: take $\frac{1}{2}$ lb. of the root of the bitter-sweet herb, add $\frac{1}{4}$ lb. fresh butter or lard; boil 15 minutes, make a salve, anoint the bag morning and evening, keeping the animal warm.

KICKING COW.

Put the cow in a narrow stable, confine her head as high as can conveniently be done, and in this position milk her a few times. After this, choose some place in the yard where you wish always to milk her, and she will soon become quiet while milking.

COWS HOLDING UP THEIR MILK.

The only remedy found for cows holding up their milk, is by continuing to milk for a long time; the cow will soon become weary and give her milk as usual.

TO PREVENT A COW FROM SUCKING HERSELF.

Take soot and aloes, or a wash of aloes alone, and apply it to the teats night and morning (after milking) for a few days.

COWS DRYING UP SUDDENLY.

This may be caused by taking a sudden cold, obstructing the urinary organs.

Remedy.—Take $\frac{1}{2}$ oz. cream of tartar, $\frac{1}{2}$ oz. saltpetre, and give blood-warm; feed for a few days with pumpkins, carrots, green cornstalks, or other succulent vegetables.

MILKING.

It is of much importance that milking should be done regularly, quickly, and, if possible, by the same hand. Too much care can not be taken that the cow be milked clean; if this is not done, the quantity becomes less, and she will soon be dried up. Frequently cows are milked early in the morning and late at night, which is very injurious, especially in the longest days of summer, though in the heat of summer they ought to be milked sufficiently early in the morning to enable them to fill themselves before the extreme heat of the day commences;

and they require milking by six o'clock in the afternoon when that is the case.

CREAM.

If milk is heated to nearly the boiling point, immediately after it comes from the cow, and put in a cool place, the cream will soon rise. In the summer it ought to be churned every morning. Many dairymen let the cream sour before churning; when this is done, care should be taken that it does not remain in that state too long. The operation of churning ought to be done in the shortest possible time.

CHURNING THE WHOLE MILK.

This is done in some countries with profit; it yields a larger quantity of butter, which is said to be of better quality and will keep longer; it is, however, not much practised in this country. It requires machinery to perform the churning with advantage.

CHEESE.

Perhaps in no production of the farm is there so great a difference in its quality as in that of cheese. This is owing to the variety of cows, quality of the milk, quantity and quality of the rennet used, pressing, &c. It is needless here to say that cleanliness is absolutely necessary in everything connected with the dairy. If the richest kind of cheese is desired, do not skim the milk at all; but cheese of a sufficient richness can be made from milk half of which has been skimmed.

RENNET.

Rennet is made from the stomach of the calf, and is prepared by partly filling it with coarse salt, rolling it up for a few days, and then opening and exposing it to the sun or to a fire to dry; or by putting it into salt and water for four days, and then sprinkling it with fine salt, and drying it as before. When the rennet is wanted for use, cut off a piece according to the quantity of milk to be used, put it into a small quantity of lukewarm water, adding a little salt, and it will be ready for use in eight hours.

DRYING UP A COW.

Bleed freely, and take half of the milk out of the bag once a day, for 3 or 4 days, then give 2 oz. alum and 2 oz. rochealum in lukewarm water. Or, take one half of the stomach of a fresh-killed calf, put it into 3 qts. water, boil $\frac{1}{2}$ an hour, add 1 oz. alum and $\frac{1}{2}$ oz. giuger, and give at one dose. Or, take 3 oz. green sage (or $\frac{1}{2}$ oz. dry), boil 10 minutes, add 1 gill fresh milk and 1 oz. powdered alum; let it stand until nearly cold, then bathe the bag night and morning. If the bag is greatly distended, draw away a small quantity of milk every morning.

TREATMENT OF CALVES.

As soon as they are able to stand, they should be left to follow the instincts which nature has implanted in them. It is the most natural and economical, as well as the least troublesome way to rear a calf, to let it run with the cow until it is old enough to wean. A good cow will thus rear two calves, provided they are all permitted to range in a fresh pasture or clover-field. If the calf is destined for the market, he ought to have all the milk of one cow, and if he craves more, milk-porridge or thickened milk can be given him. He ought to be kept until he is seven or eight weeks old.

Many farmers dislike to have the calf run with the cow; in that case the calf ought to remain with the mother long enough to learn how to draw the milk, which he will generally do in two days, when he can be kept so far from the cow that they can not hear each other's call. Take fresh warm milk, apply the finger to the mouth, and gently lead him to the vessel containing the milk, and he will very soon learn to help himself. The milk of the cow, for the first three days, except what is given to the calf, is only fit for swine. If the new milk is valuable, it will answer to gradually lessen the quantity, and add skim-milk scalded and thickened with corn or oat meal, with a little salt.

If calves are troubled with lice, turn them among the sheep for a few days, and they will disappear. Calves require a dry, warm shelter, a good bed, and to be fed three times a day. Their food should occasionally be

changed. If they are allowed fresh clover, it will at first produce the scours, and they ought to be removed frequently to less luxuriant pasture. For the first winter they will need much attention; they should be kept separate from other cattle, and furnished with small quantities of chopped potatoes or turnips each day in addition to sweet tender hay and rowen.

SCOURS IN CALVES.

This is a common complaint with calves, especially when separated from the cow, or brought up by hand. If the attack is slight, it will not be attended with any injury.

Remedy.—Take 1 oz. laudanum, 2 oz. powdered chalk, and 1 pt. water, and give a gill (lukewarm) 4 times a day. Another: take 1 teaspoonful of powdered chalk, and the same quantity of allspice, with a teacupful of hot water, and give every 12 hours. Another: take 1 fresh egg and beat it up, add 1-4 oz. laudanum and 1 gill water, and give at one dose.

HOARSENESS IN CALVES.

This is occasioned by taking cold, exposure to storms, or sudden changes of the atmosphere, which produce a cough and difficulty of breathing.

Remedy.—Take 1 pt. cider-vinegar, 2 oz. aloes, 2 oz. linseed oil; dissolve, and inject a teaspoonful into each nostril every other morning. Another: take 2 oz. asafoetida, 1 pt. vinegar, 3 oz. hartshorn; mix, and pour a teaspoonful into each nostril every other morning until relief be obtained.

THE SHEEP.

From the earliest ages sheep have been classed among the most valuable of domestic animals. Previous to the deluge they were offered in sacrifice, and since that period their flesh has been used for food and their wool for clothing, in all quarters of the world. The limits of this work preclude a particular description of the numerous



species of this animal. The stock originally raised in this country was derived from Great Britain; this has generally given place to the Merino, the first importation of which was made by the American minister at the court of Versailles, Chancellor Livingston, in 1802. Since that period Merinos have been bred of either pure or mixed blood, in almost every sheep-growing county in the United States and the Canadas. The Saxon sheep were introduced into this country in 1824, and are now to be found in various sections of the Union.

MANAGEMENT OF SHEEP DURING THE SPRING.

As soon as the mild weather of spring appears, and long before all the snow has disappeared, sheep exhibit an inclination to leave their long confinement and seek their food in the meadow or pasture. It is well, however, to keep them confined until the snow has mostly disappeared, and the ground becomes nearly dry. Sheep at this season should be yarded where they can have access to the ground in the daytime, and be fed occasionally with potatoes and turnips.

MANAGEMENT OF SHEEP IN SUMMER.

Sheep require pastures that are dry. They thrive best on high table-land or mountain ridges, abounding in bitter plants and aromatic herbs. A trough fastened to the ground, and containing salt, ought always to be accessible to them. As sheep roam over a large space of ground, it is well to divide their pasture into small portions, removing them often from one to another. The flock will require to be examined several times each week, in order that the diseased ones, if any are found, may be at once removed, to prevent others taking the malady. During the extreme heat of summer it is important to the health of the sheep to keep them in fields that contain plenty of shade-trees and running water. The husbandman will be well repaid by giving white beans to his flock as often as once a week. By the middle of summer select the sheep designed for market, always preserving the best ones for breeding; and they should be early separated from their lambs, to enable them to regain their usual flesh before the commencement of winter. It will be necessary to give a small quantity of potatoes, meal, or grain, to those preparing for market.

MANAGEMENT OF SHEEP DURING AUTUMN.

In the early part of autumn sheep are subject to several complaints, some of which may be averted by putting tar in their salt-troughs, or applying it with a brush to their noses. At this season all the very fat ones should be taken to market, as it is doubtful whether they can ever again acquire so much flesh. Sheep require housing when the frosty nights commence, and should be permanently taken from the pastures before they begin to lose flesh by the scarcity of food and the severity of the weather.

MANAGEMENT OF SHEEP DURING WINTER.

Before the extreme cold weather commences, they should be brought into winter-quarters, and the young and feeble be separated from the strong and healthy.

and the diseased be so far removed from the others that the disease be not communicated to the flock. Long experience has proved that sheep require, in the winter dry yards, pure water, room to exercise, access to the ground, regular time for feeding, and frequent change of food.

FEEDING SHEEP IN WINTER.

No other animal requires so much attention to its food during winter as the sheep. When first brought in for the winter, they are usually confined in so small a space, and in such numbers, that the air becomes impure, and will soon produce disease. It will be a great preventive of disease to besmear their noses with tar as often as once in two weeks during the winter. Although no better food for sheep exists than ripe well-cured timothy hay and clover, yet an occasional change to rowen and other kinds of hay, for a day or two, will be found of essential benefit. They will thrive on oat, bean, or pea straw, provided it be cured green, and they have a supply of potatoes, turnips, and carrots, at the same time. Much grain does not agree with sheep; it is too solid; yet they eat much less hay, and thrive much faster, by giving each one gill of peas or beans, or half a pint of oats per day. This keeps them in good heart, and is calculated to prevent them shedding their wool. Sheep suffer much during the winter by being deprived of green food, and not having access to the ground. If possible, let them have a few feet of turf, loam, or gravel; should this become frozen, break it up occasionally with a crow-bar or axe. Feed them once a week, or oftener, with potatoes, turnips, beets, parsnips, or carrots, and a few green boughs of the hemlock, pine, cedar, or spruce, or of the sweet-fern herb. Separate troughs, with salt, wood-ashes, tar, sulphur, and clay, ought always to be within their reach. While it is true that sheep at large in the summer and autumn will make the heavy dews a substitute for water, yet during their long winter confinement, when nearly all their food is dry, they will need water several times a day.

MANAGEMENT OF SHEEP AT YEANING TIME.

For six weeks before yeaning-time, the ewe should be deprived of most of her accustomed supply of potatoes, &c., as these are calculated to produce an over-supply of milk, which may seriously injure her; at the time of yeaning, however, should a *small* quantity be given her, it will tend to strengthen her. Sheep turned into the field at such a time, generally need no assistance, yet they ought to be looked after night and morning, and, if possible, kept separate from the flock during the night, or kept only with others in like condition. If yeaning-time comes while the nights are cold and frosty, the ewes should be warmly housed.

MANAGEMENT OF LAMBS.

Lambs, for a few days from their birth, are very feeble, and require particular attention. It frequently happens that young sheep will not own their lambs; and where there is a large flock the lambs frequently get changed. In either of the above cases, it is necessary to hold the sheep until the lamb has drawn the milk a few times; first, however, uncapping the teat, and taking away a small quantity of milk. It sometimes happens that the lamb is too weak to stand; it then becomes necessary to lay the sheep down and put the lamb to the teat; and if, from ignorance, the lamb should refuse to draw the milk, the teat must be put in its mouth, and the difficulty will soon be obviated. Should there be an abundance of wool on the sheep's bag, calculated to prevent the lamb having free access to the teats, it may be sheared off. In cold weather it frequently happens that lambs are dropped in the field or yard, and are found cold and stiff, and apparently beyond resuscitation; their lives can, however, often be preserved by conveying them to a moderately warm room, enveloping them in woollen cloths, and giving them warm new milk. In case sheep produce twins, the ewe may not afford a sufficient supply of milk for both. One of the lambs can easily be brought up by hand, or the sheep can be fed liberally with potatoes or turnips to increase the quantity

of her milk. Sometimes lambs appear pining and swollen without the cause being discovered. This is frequently caused by the excrements adhering to the body and closing the vent. It can be prevented by rubbing the parts with clay or red earth.

WEANING.

If lambs are left to run with their dams to a late period in the fall, it not only greatly injures the sheep, by preventing their recruiting sufficiently before the winter commences, but the lambs do not get accustomed to dry food before cold weather sets in, and thus both sheep and lambs are unfitted for the rigors of winter. At this season the sheep should be turned into a poor pasture for a few days, while the lamb should have fresh rowen or clover-hay. After the ewe has been poorly fed for three weeks, it should then have good fare for the remainder of the season; for if winter overtakes her in low flesh she will remain so until spring. Lambs preparing for market should have good feed, and remain with their dams as long as the welfare of the sheep will allow.

CASTRATION OF LAMBS.

This ought to be attended to when they are not over four or five weeks old, for the longer it is neglected after that age, the more hazardous it becomes. When catching the lambs they should not be worried, as in that case their blood becomes heated, and it is dangerous to perform the operation. It is customary with many to apply salt to the wound, but tar mixed with lard or fresh butter has been found to be far more safe. The lambs are liable to take cold while the wound is healing if they are exposed to storms or severe cold nights.

WASHING SHEEP.

This should never be performed until the weather is moderately warm, as they are liable to contract a cold which will lead to other diseases, if performed in cool weather. As a general rule it can be attended to from the 20th of May till the 10th of June, always selecting a warm day and attending to it in the morning, that the fleece may become dry the same day.

SHEARING.

This operation requires some experience to perform it skilfully. Care should be taken to separate all the tags before rolling up the fleece. Should wounds be made, apply a mixture of tar and grease before turning them out. The branding and marking operation should be attended to at this time. For four or five weeks after shearing they require a shelter during cold storms. For want of this protection many perish during the month of June.

TO PREVENT SHEEP FROM TAKING COLD AFTER SHEARING.

Sheep are sometimes unavoidably exposed to cold winds and storms after shearing. To enable them to endure this exposure, wash them immediately with a brine made of 1 qt. of salt and 1 pailful of water, applied with a brush. This simple operation will not only enable them to withstand the weather, but it will destroy any nits that may adhere to them.

TO LEARN THE AGE OF SHEEP.

Their age can be ascertained from the front teeth. At one year old there are eight full teeth; at two years, the two middle ones fall out, and two much larger ones appear in their place; at three years, one on each side of these last named likewise fall out, whose places are filled with two larger ones; at four years, two more fall out, which are supplied by others; and at five years, all the small teeth are gone, and the full set of large ones appear. After this, the exact age can not be known, but it can be nearly determined by the wear and long appearance of the teeth.

RACKS, MANGERS, FEEDING-TROUGHS.

Too much attention can not be given to these indispensable appendages of the barnyard. If the hay is suffered to be placed on the ground, the ripe seeds and small particles will not be saved, and when the yard is wet, or the ground covered with snow, much of the hay will be trodden under foot and lost. Racks are usually preferred to mangers, but when these are used, troughs

made of boards ought to be placed at the bottom to catch the seeds, leaves, and fine hay, that otherwise would be lost. Troughs can be made very cheap of boards, and secured by stakes driven into the earth, so that they will rise from eight to twelve inches above the surface of the ground. In these ought to be kept a supply of salt, wood-ashes, tar, and occasionally a little sulphur.

SHEEP-BARNs, OR SHELTERS.

Sheep require constant and pure air, and for that purpose their food should be taken in the open air, except during severe storms or extreme cold weather; where it is convenient, it is well to construct their shelter on a side-hill, where it can be stoned up on three sides, with an opening toward the south; at the same time so to construct it that a free circulation of air can always be kept up. Where a sheep enclosure is connected with the horse or cattle barn, it ought to occupy the warmest portion, and each species of animals should be kept separate from the others.

DISEASES IN SHEEP.

With a general knowledge of their physiological construction, and a timely attention to their wants, most of the diseases to which sheep are subject can be easily managed. It requires great judgment to administer medicine at the proper time, and in suitable quantity. In the use of it, it is safe to follow the rules laid down in this work for neat cattle. The quantity prescribed for a full-grown ox or cow will be sufficient for twelve sheep or twenty lambs.

ROT.

This is not very common in this country, but it occasionally infects large flocks, and first shows itself by dullness, hanging of the head, inflamed eyes, and general debility.

Remedy.—Make a strong decoction of the bitter-sweet oranches, and give $\frac{1}{2}$ a teacupful every morning, with a good supply of salt, and feed on dry food for 3 days

FOOT-ROT.

It is supposed that this disease results from sheep being kept in low, wet, or clayey lands, producing inflammation of the foot, and an unnatural growth of the hoof.

Remedy.—Whenever the disease appears, let the foot be washed, and the hoof pared off as much as possible, not to make it bleed. Let the sheep stand upon a dry stable-floor, sprinkled with lime, for four hours; after this he may be kept in a dry pasture without further danger. Another: take 1 oz. verdigris and $\frac{1}{2}$ oz. blue vitriol, dissolve them in warm vinegar, and after the foot is pared, apply a small quantity, and bind a cloth over the foot and let it remain for 4 days. Another: after the foot has been pared, apply spirits of turpentine and blue vitriol, in equal parts, and bind up as before. The foot must be often dressed, and the sheep kept on a dry floor or in a green pasture. Those that are diseased should be kept separate from the flock, as the disorder is infectious.

FLIES ON SHEEP.

Make a very thin composition of $\frac{1}{2}$ lb. sulphur, 1 pt. tar and linseed oil or soft grease, and apply it to all parts of the body; this may be repeated every three weeks. It requires only a very small quantity for each sheep.

LICE AND TICKS ON SHEEP.

These are found to attack sheep that are poorly kept. The only effectual cure is to make a strong brine, or, take $\frac{1}{2}$ a barrel of cold water, adding $\frac{1}{2}$ lb. tobacco-leaves boiled in 4 qts. water, and dip the sheep (all except the head), pressing as much of the liquid out of the wool as possible after dipping.

STAGGERS.

This is a disease of the brain, caused by unwholesome or improper food, which produces extreme constipation of the bowels, occasioning staggering and general weakness.

Remedy.—Take $\frac{1}{2}$ pt. fresh butter or lard, and give in a melted state. Another: dissolve 2 oz. asafoetida in 2 quarts of warm water and give 2 tablespoonfuls 3 times

a day. Give half the quantity the following day if necessary.

STURDY, OR WATER IN THE HEAD.

Cause.—That this disease is occasioned solely by a chilliness in the back, appears from the following facts: 1st, it is always most general after windy and stormy weather; 2d, it is most destructive on farms that are ill sheltered, and on which sheep are most exposed to severe storms; 3d, it preys only on sheep about 1 year old, whose wool separates above, leaving the back exposed to the wet and cold.

Symptoms.—As this is a disease of the brain, it manifests itself by giddiness, staggering, dulness, wildness, loss of flesh, sudden starting, and, finally, a faintness, attended with blindness, prostration, and death.

Remedy.—If the attack is slight, it may be removed by placing the sheep in a dry pasture, after purging freely; but if the disease is violent, trepanning is usually resorted to. It has been cured by boring into the soft part of the skull, with a small gimlet, and letting the water escape. Close the wound, and apply some adhesive plaster. Another: the following is the most difficult, but at the same time the most sure method of giving relief, if skilfully performed: the disease is seated exactly in that part where the divisions of the skull meet, and consequently in a right line with the top of the nose; put a sharpened wire up the nostril quite through the middle of the brain, and by that means perforating the bag which contains the fluid causing the disease. The operation must be performed with a stiff steel wire, of the size of a coarse knitting-needle. The operator must place his thumb on the soft part of the skull, and insert the wire up the nostril, in the direction of the thumb, until he feels the end of the wire, when it is to be immediately withdrawn, and the animal let go free. The operation must be done carefully and quickly, and if the right direction is given to the wire, relief is instantaneous. Keep the sheep in a dry pasture, giving daily one gill of corn or one pint of oats for a few days, and it will soon regain its wonted health.

SCAB.

This is a very troublesome and contagious disease, showing itself on the back and neck of the sheep, producing a severe burning or itching, and causing the animal to rub itself until the blood flows from the neck and head.

Remedy.—A weak decoction of tobacco in dry weather, or juniper oil berries, or boughs, in wet weather, will effect a cure. Another: take 1 lb. hog's lard, 2 oz. sulphur, and 1 oz. red precipitate; mix well, and anoint the diseased parts with a very small quantity.

SCOURS, OR DIARRHŒA.

If the attack is slight, it need excite no fears, unless it be of long continuance.

Causes.—Overloading the stomach, over-driving in warm weather, eating noxious weeds, change from poor to very rich food, sudden change of the weather from heat to cold or cold to heat, &c.

Remedy.—The treatment should depend upon the causes that produced the disease. If it is the result of eating green food, give dry grain and hay for two days. If exposure to wet and cold be the cause, remove to a warm stable and give dry food. Where over-heating has produced it, remove to a cool enclosure, and give a small dose of physic, and in 4 hours after give 2 grains opium and 1 oz. powdered chalk mixed with $\frac{1}{2}$ a pint of wet bran or oats. Where unwholesome food has occasioned the malady, it is not safe to check it at first; it is well to give a tablespoonful of castor oil that the system may become properly cleansed, then make a tea of the white-pine bark, and give in small doses; or take $\frac{1}{2}$ oz. castor-oil, adding 25 drops of laudanum, and give in $\frac{1}{2}$ pint of warm water, after which give dry food, with a small quantity of oats or bran, and salt. Another: boil 1 qt of new milk, add $\frac{1}{2}$ pt. rye-flour, and give lukewarm.

SCOURS IN LAMBS.

If this takes place when the lamb is but a day or two old, remove the sheep to a warm stable, and feed on corn or oats for two days. If the lamb is large, take powdered chalk, and mix a small quantity with its food.

Another: give 15 drops laudanum and a teaspoonful of ginger. Another: give a teaspoonful of castor-oil, and feed on boiled new milk thickened with rye-flour.

DYSENTERY.

This is generally the result of long-neglected scours, &c., though sometimes produced by unwholesome food and other causes. It will show itself not only by a discharge, often discolored with blood, but by severe gripping pains, which often terminate fatally.

Remedy.—Give 2 tablespoonfuls of castor-oil, and in 6 hours after, give 25 drops of laudanum, with a teaspoonful of ginger and 1 pint of boiled bran, and also cooling drinks. Another: Six hours after giving a moderate dose of physic, of castor-oil or Epsom salts, take 1 teaspoonful of powdered charcoal, adding 1 oz. fresh butter; mix with bran, and give at one dose. Moderate bleeding is sometimes beneficial in this disease.

FOUL NOSES.

This disease manifests itself by the inflammation and running of the eyes, weakness in the back and hinder parts, drooping of the head, and loss of appetite.

Remedy.—Lobelia (Indian tobacco), either dry or green, given in a weak tea. Or, applying warm tar to the nose, and giving a small quantity of tar-water, will soon effect a cure.

SORE EYES.

This complaint is the result of a cold, sudden change of the weather, or very low flesh.

Remedy.—Put the sheep in good condition, and the complaint will generally disappear. New milk applied to the eyes is very serviceable.

CAKED BAG.

This is caused by the loss of the lamb or the lamb being unable to draw all the milk. If the lamb is lost, substitute another in its place; and if the lamb is not able to draw all the milk, it can be taken away a few times by hand, and keep the sheep on dry food for a few days.

HOVEN.

Sheep, like neat cattle, when put into a fresh clover-field, will sometimes have their stomachs distended by wind to that degree that they must be relieved at once, which can be done in the same manner as for cattle. The swelling rises the highest on the left side, and on this side let the incision be made. (See cattle, p. 39.)

COSTIVENESS.

Remedy.—Give $\frac{1}{2}$ oz. Epsom salts or two tablespoonfuls of castor-oil, or feed on green clover for one day

COLDS AND INFLUENZA.

These are caused by exposure to storms and cold, and sometimes by lying on wet and marshy grounds, and by sudden changes of the atmosphere.

Symptoms.—The indications of this disease are a discharge of mucus from the nose, weakness, dullness of the eyes, loss of appetite, and wheezing.

Remedy.—When the cold is slight, give them a few white-pine boughs to browse upon, with a good supply of salt and tar. If the disease does not yield to mild treatment, moderate bleeding must be resorted to, with warming drinks made of pennyroyal, sage, or catnip. Another: if the disease is far advanced, attended with diarrhœa, give 20 drops of laudanum with a teaspoonful of powdered chalk, once a day until relieved; after which give white-pine or hemlock boughs.

INFLAMMATION OF THE LUNGS.

This is caused by exposure and cold, which settles on the lungs, attended with the same symptoms described under the head of colds and influenza, only in an aggravated degree.

Remedy.—Put the sheep into a warm enclosure, bleed freely, and give a tablespoonful of castor-oil, or the same quantity of lard; after which give warm nourishing drinks.

INFLAMMATION OF THE BRAIN.

Cause.—Over^t-heating, overdriving, breathing impure air, or high feeding with solid grain.

Symptoms.—The ears stand erect, eyes red and fiery fierceness, raving, starting, and madness.

Remedy.—Bleed freely in the head; give 1 oz. Epsom salts or 2 oz. castor-oil, bathe the head for 1 hour in cold vinegar and water (in equal parts), give $\frac{1}{2}$ pt. sage tea mixed with $\frac{1}{2}$ pt. molasses; repeat the bathing and tea if necessary.

PELT-ROT.

In this disease the wool falls off, leaving the skin covered with a white thin crust.

Remedy.—The only remedy for prevention is good feeding, warm keeping, and anointing the parts from which the skin is off with a thin ointment of tar and grease.

SMALL-POX, OR COW-POX.

This disease shows itself in blisters, first on the flanks and afterward spreading over the body. It is usually produced by drinking stagnant and impure water.

Remedy.—Give slightly purgative medicines, anointing the blisters, as they break, with sweet-oil, and removing them where they can have access to pure water. The disease is infectious.

SORE AND SWOLLEN MOUTH.

This is occasioned by eating irritating or poisonous plants, as the Johnswort, hemlock, nettles, and some other plants.

Remedy.—Tar-water, or putting tar in the mouth, and a teaspoonful of sulphur in oats or bran. Or, an ointment of fresh butter and sulphur applied to the affected part will usually effect a cure.

WOUNDS AND CUTS.

Wounds received by being hooked by neat cattle, or from the bite of a dog, should be left to bleed a short time; then sew up (if the wound is large), and apply salve made of beeswax and lard, and keep the animal still for a few days. If the cut is on the leg, it ought to be dressed as above, with bandages.

FEVERS.

Fevers are the result of various causes, and are to be treated much the same as in cattle; but the dose for 1 ox

is sufficient for 12 sheep. If the sheep is costive give a tablespoonful of castor-oil, followed by cooling drinks. (See cattle, p. 28.)

DOCKING SHEEP AND LAMBS.

At 4 weeks old place the lamb on the floor, draw the skin up toward the body, and cut off the member 2 inches from the body, between the joints, and the skin will return over the wound. After the operation is performed, apply tar and grease, which will keep off the flies, and cause it to heal soon. If the operation has been neglected until the animal becomes old, attend to it early in the spring or in the fall.

STRETCHES.

This disease is the result of being kept confined during long winters, or extreme costiveness.

Symptoms.—Loss of appetite, stretching on the ground, dullness of the eyes, passing the head quickly from side to side, and frequent unavailing efforts to void dung.

Remedy.—The only remedy is purging. Give to each sheep 3 tablespoonfuls of melted lard, or 2 tablespoonfuls of castor-oil, or 1 oz. Epsom salts. Slight attacks can be cured by giving moist food for a few days. If sheep have occasionally a few potatoes, turnips, &c., or green boughs of hemlock or pine, they are never troubled with this disorder.

GAD-FLIES, WORMS, OR MAGGOTS, IN THE HEAD.

The disorder produced by the gad-fly (*Cestrus Ovis*) is very fatal among large flocks of sheep, frequently carrying off numbers without the cause being suspected. In July, August, and September, these insects deposite their eggs in the nostrils, where they remain for some weeks, when they hatch, and, being small at first, continue there till the next spring or summer, when they creep up into the head, producing disease and death.

Symptoms.—This complaint generally appears as warm weather approaches, and becomes manifest by water or matter running from the nose, frequently discolored with blood; drooping of the head, running with the nose near the ground, snorting, starting suddenly,

loss of appetite, loss of flesh, the wool falling off, and in the latter stages of the disease, the animal becomes frantic, suddenly falling and soon expiring.

Remedy.—If the attack is slight, it may sometimes be removed by smearing the nose with tar, or putting salt and tar in the trough. Another: when the symptoms first appear, let the sheep run in a fresh-ploughed field for one week. Another: take a tobacco-pipe, well-lighted, and blow up the smoke in each nostril for a short time, repeating the operation once in three days. Another: take 1 lb. Scotch snuff and 1 oz. powdered ginger, pour upon them 3 qts. boiling water, mix well, and, when cold, pour a tablespoonful of the decoction into each nostril, holding the head well up for a short time. Where snuff is not at hand, take 1 lb. of leaf or $\frac{1}{2}$ lb. plug tobacco, boil it 15 minutes, and add to this a small quantity of ginger, and use as above. When this is given to the sheep it produces a stupefying effect for a few moments; they will, however, soon recover. It is a good precaution to administer a small quantity of the above liquid to the whole flock once in 4 weeks during the winter. Another: take spirits of turpentine and a weak decoction of tobacco, in equal quantities, and inject a teaspoonful into each nostril, holding the head for a moment in an elevated position. A little train-oil or rancid butter may be applied to the nose after the worms are expelled, which may prevent a second attack.

POISON.

This is occasioned by eating laurel, wilted leaves of the wild cherry, and some other shrubs and plants.

Remedy.—Take of the twigs of the white-ash, boil for 2 hours, and give $\frac{1}{2}$ a teacupful of the liquor with a gill of molasses, in a lukewarm state, to each sheep. Unless relief be obtained within 1 hour, the dose may be repeated, reducing the quantity one half. Another: give immediately $\frac{1}{2}$ a teacupful of melted fresh butter or lard.

BLEEDING.

In sudden attacks of disease, it aids the recovery of an animal to bleed freely, provided he is in high flesh. There are various ways of performing this operation.

Where a small quantity of blood is to be taken, it can be done by opening a vein under the tail, but the usual and most preferable parts of the body are the face and legs. The prominent veins of the face are easily accessible. When the operation is to be performed, the thumb should be applied to the vein below where the incision is to be made, and soon the vein will fill. When the required amount of blood is taken (which depends upon the size and condition of the animal), insert a pin through the vein and tie a thread close around it.

TO PROTECT SHEEP AND LAMBS FROM DOGS, FOXES, AND WOLVES.

Take equal parts of sulphur and tar, adding a small quantity of aloes, powdered, and smear their necks and legs once a month through the summer.

SWINE.

THE breeds of swine raised in this country are so numerous, that the limits of this work will not admit a detailed or particular description of them. It is, however, practically sufficient to say, that the Old English and the Berkshire are considered as decidedly the best, and are to be found in all sections of the United States.

BREEDING.

For breeding purposes, choose the largest, and those having the longest body; and none should be selected under one year of age. They should have a pasture or large yard to range in, and be given, occasionally, green food. They should be kept as much as possible to themselves at the time of littering. For three or four days after littering, the sow should be fed on boiled bran or other light food, and protected from annoyance. If the litter is large, the sow will need much green or liquid food, yet care should be taken that the scours, or diarrhœa, is not produced. Sometimes sows devour their pigs; this can be prevented by giving them fresh meat for a day or two.

MANAGEMENT OF PIGS.

Pigs will soon learn to eat green herbs, and should have a few oats daily, with a good supply of milk. Should they be attacked with scours, new milk boiled, and thickened with flour, will soon relieve them. When they are ten weeks old they can be weaned, keeping them out of the sight and hearing of the sow. It is well not to take all of the pigs from the mother on the same day. The sow should be fed on dry food for one week, thereby lessening the amount of milk. When it is desirable to fatten pigs fast, give them boiled rice.

GENERAL MANAGEMENT OF SWINE.

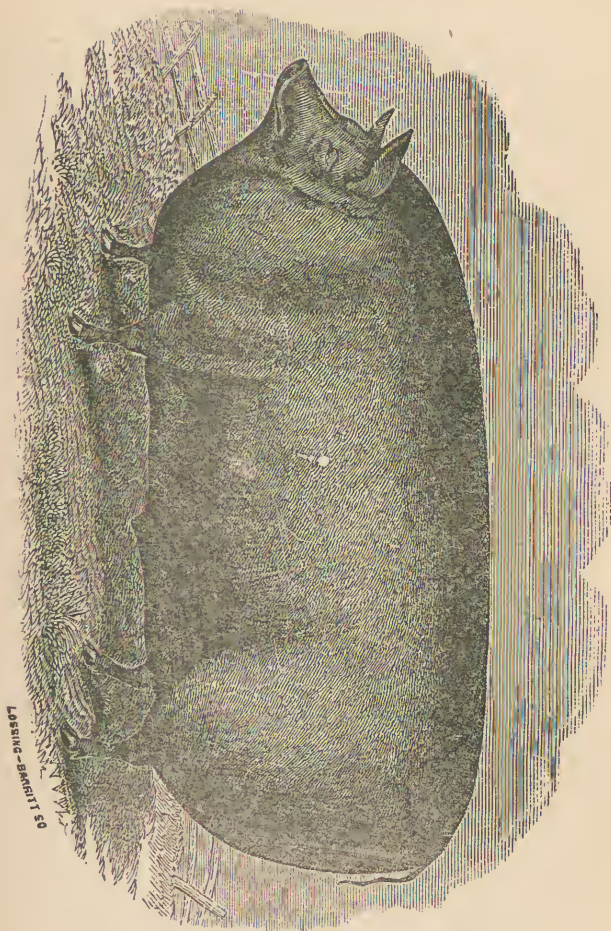
It only requires good management to make the raising of swine one of the most profitable occupations of the farmer. In the summer season swine will greatly improve by being allowed to run in a clover-field or pasture, also having the whey of the dairy and wash of the house, with salt every other day. When swine are not permitted to range at large, allow them occasionally to have access to a trough containing salt, tar, sulphur, wood-ashes, and a small quantity of Epsom salts and charcoal.

PENS.

It is an impression with many that swine thrive well when kept in filthy or wet and muddy pens; this has been proved to be a great mistake. They will thrive much the best in a perfectly *dry, clean, and comfortable shelter*. The pen ought to be built in a warm location, protected from piercing winds, with free access to the open air. It should be divided into three apartments, one for eating, one for sleeping, and one for evacuation. The first two should be on the highest ground. The troughs should be fastened to the floor or ground, and not more than five inches deep, that no great pressure be made on the throat while drinking.

FATTENING.

After bringing them from the pasture, and in preparing them rapidly for the market, they will require a gentle purgative, unless green cornstalks or other green food be given them, as dry grain is liable to produce costiveness. To save trouble, corn, potatoes, &c., are frequently given to swine in their raw state. Where this is done, at least one third of the nourishment is lost. Grain should always be ground and cooked, or soaked until fermentation is produced, and potatoes and other roots boiled and salted. Experience has proved that grain and roots given alternately, greatly conduce to the thriving of the animals. They should be fed regularly three times a day, and be allowed fresh earth, rotten wood, or a small quantity of



pulverized charcoal, three times a week. Food should never be given of a higher temperature than blood-heat. It is unwholesome if it is given hot, often producing the measles.

DISEASES OF SWINE.

It is no less true, though perhaps mortifying to the animal that *walks erect*, that in its internal economy and general physiological structure, the hog bears a close resemblance to the human being; and, therefore, its diseases require, in a measure, the same treatment. As its maladies, however, are but little known, and are also difficult to cure, care should be taken, as far as practicable, to preclude the necessity of the use of medicine. In addition to the precautions before given, we would say, that swine should, if possible, in spring, summer, and autumn, have access to running water.

MEASLES.

This disease is seldom found in swine, yet when it does attack them it is difficult to remove it. It is caused by high-feeding or giving very warm drinks, producing small tumors in the throat. This disorder is not easily discovered while the animal is alive, and can only be known by its not thriving or fattening as the others.

Remedy.—Give $\frac{1}{4}$ oz. Epsom salts after fasting 12 hours. Another: take 2 grains powdered antimony and give in new milk. Another: give $\frac{1}{2}$ oz. sulphur twice a week with their food.

ISSUES.

Unlike most other animals, hogs have no insensible perspiration from the body, but have a number of small issues on the inner side of their fore-legs, below the knee joint; here, it appears, is the outlet for the superfluous fluid of the body. When these become obstructed by mud, clay, or any other substance, the animal becomes sickly, loses his appetite, and is thirsty and feverish.

Remedy.—The only relief known is to open the issues by rubbing them with a stick or cob, and anointing the parts with a small quantity of sweet-oil, to prevent their closing again.

QUINSY.

This disease shows itself by a stiffness of the legs, inaction, difficulty of swallowing, taking hard food into the mouth and casting it out again, often lifting the head, stretching the neck, and a swelling of the glands of the throat. It results from taking cold or from the closing of the issues and other causes.

Remedy.—Bring them into a warm enclosure, and see that the issues are well open; take 1 qt corn-meal, $1\frac{1}{2}$ oz. Ep-

som salts, 1 oz. castor-oil, 1 tablespoonful of sulphur, 1 qt. new milk, and give at once, keeping salt and tar in their troughs.

SORE THROAT.

The symptoms are similar to those of the preceding complaint, with this exception, that the glands of the neck are not swollen.

Remedy.—Take a teacupful of molasses, $\frac{1}{2}$ a teacupful of vinegar, a tablespoonful of melted butter, and a teaspoonful of black pepper, and give when nearly cold. Feed for two days with fresh clover or potatoes and turnips.

COLDS, COUGHS, AND INFLAMMATION OF THE BRAIN.

Owing to the very light covering allotted to this animal, he is peculiarly liable to these complaints. The only preventives are warm pens, proper attention, and, more than all, a thick lining of fat under the skin, which will enable them to endure storms or extreme cold weather. Swine that are poorly kept are very subject to these complaints, while those that are well kept almost invariably escape. The symptoms are more or less violent, according to the severity of the attack.

Remedy.—If the cold or cough is not severe, moderate purgatives and a warming diet will generally effect a cure, but if the disease appears to affect the lungs, bleed 1 pint, and give gentle physic, of Epsom salts or castor-oil and sulphur.

RUPTURE.

What is called a rupture is a hole broken in the rim of the belly which causes a part of the intestines to come out and lodge between the rim of the belly and the skin, having an appearance similar to a swelling in the testicles. The male pigs are more liable to this disease than the females.

Remedy.—Geld the pig thus affected, and cause it to be held up with its head downward; flay back the skin from the swollen place, and, from the situation in which the pig is held, the intestines will naturally return to their proper place; sew up the hole with a square-pointed needle, with a bend in it, as the rupture is frequently between the hind legs, where a straight needle cannot be used. After this is done, replace and sew up the skin. Apply a salve made of mutton-tallow and beeswax, and feed sparingly for one week.

SCOURS.

Scours are caused by overloading the stomach, eating unwholesome food, or over-driving.

Remedy.—The same medicines can be given as for cattle (p. 49) only the dose for an ox is sufficient for 10 or 12 swine. Take 1 gill of pulverized charcoal or 2 tablespoonfuls of pow-

dered chalk, and mix with the food; or take 25 drops of laudanum mixed with 1 quart new milk.

BLIND STAGGERS.

This disorder is generally confined to pigs under one year old, and is caused by high feeding, impure air, or excessive heat, producing a determination of blood to the head.

Symptoms.—Partial blindness, foaming at the mouth, staggering, weakness, and grinding of the teeth.

Remedy.—Examine and see that the issues on the legs are open, purge freely, and in 6 hours after give 1 gill of brandy or rum, and a teaspoonful of pepper.

BRUISES AND CUTS.

These require much the same treatment as in other animals (See cattle and sheep, pp. 42, 54, 76.)

SWELLINGS.

Swellings can generally be scattered by rubbing thoroughly with warm spirits or vinegar, adding a small quantity of black pepper. If the swelling is but small, apply warm soap-suds. Should the swelling be large and soft, it may require poulticing. After it is opened, apply drawing healing salve, made of beeswax and mutton-tallow.

CATARRH.

This is the result of colds and exposure, manifesting itself by an unnatural discharge from the nose.

Remedy.—Take 2 oz. coriander-seed, 1-2 pt. molasses, and 2 oz. ginger; boil 15 minutes in 2 qts. new milk, and give warm, keeping the animal warm, and feed on dry food for a few days.

ITCH, SCAB, OR MANGE.

This complaint is produced in young pigs by drawing nourishment from the sow after she has eaten some unwholesome food, and by other causes.

Symptoms.—The pigs are often seen rubbing their necks, sides, and bellies, producing a red and inflamed appearance of the skin. As the disease progresses, small fiery blisters appear, rendering the animal emaciated and restiff, which frequently terminates fatally unless relief be obtained.

Remedy.—Immerse the pig in lukewarm water, and, after drying, apply to all the parts affected an ointment made of 1-2 lb. lead and 1-4 lb. sulphur. If the pig is old enough to drink, put a small quantity of sulphur in his food.

FEVERS.

These are occasioned by colds, exposure, or the stoppage of the issue.

Remedy.—Examine the issues, and give a moderate dose of physic and a few boiled parsnips, and other cooling liquids. (See fevers in cattle, p. 45.)

COSTIVENESS.

Remedy.—Give a small quantity of Epsom salts or castor-oil in the food, and a few handfuls of fresh clover if it is in season. (See cattle, p. 49.)

KIDNEY-WORM.

The symptoms are great weakness of the loins and hinder parts, followed by entire prostration. It is seldom cured unless attended to in its earliest stages. This disorder is prevented by a range of pasture, and mixing a teacupful of wood-ashes with their food every week, or putting tar and saltpetre in their troughs.

Remedy.—When first attacked, anoint the loins with spirits of turpentine, or soak corn or rye in lye made from wood-ashes, and feed every morning; or give 1 grain of calomel, and keep the animal warm for a few days.

SWINE-POX.

This shows itself by a fine eruption of the skin near the joints, and by a redness of the eyes.

Remedy.—Take $\frac{1}{2}$ an oz. saltpetre, dissolve it in $\frac{1}{2}$ pt. vinegar and a teacupful of sweet or linseed oil, and a tablespoonful of honey, and give lukewarm, in 3 parts, every morning.

BLACK TEETH.

This generally attacks swine early in the spring, and is occasioned by being kept long from the ground. Its first symptoms are the teeth turning brown, and soon after black, which soon affects the whole system, producing dizziness, trembling, weakness of the hinder parts, loss of appetite, and wildness of the eyes.

Remedy.—As the black teeth not only injure the general health as well as the sound teeth, they ought to be extracted. Examine and see that the issues are open, give 1 oz. sulphur and 1 oz. pulverized charcoal, with tar-water, and fresh green food. Keep the diseased swine separate from the rest for a few days.

MURRAIN.

This disorder is the most prevalent toward the close of warm weather, when the blood becomes thick and inflamed, producing fever, shortness of breath, weakness, inflammation of the eyes, drowsiness, and inaction.

Remedy.—Boil $\frac{1}{2}$ lb. elecampane-root $\frac{1}{2}$ an hour, in 6 quarts water; add $\frac{1}{2}$ lb. sulphur, $\frac{1}{2}$ lb. pulverized aniseseed, $\frac{1}{4}$ lb. liquor-

ice ball, $\frac{1}{4}$ lb. ginger ; bottle, and give in pint doses every morning. Keep on green food for a few days.

UNIVERSAL SPECIFIC.

Many farmers, when their swine show signs of illness, feed them with corn-meal, mixed with 2 oz. sulphur and the same quantity of tar, charcoal, and salt, removing them to a warm, dry shelter. This, of course, will not cure all diseases, but will prevent most of them assuming a violent form.

PHYSIC.

It is customary with many people, when medicine is to be administered to swine, to put a rope in their mouths and draw their heads up. This is a very injurious practice, for should the hog attempt to squeal, the liquid will go down the wind-pipe and choke him. The only safe and effectual manner of giving medicines, is with milk or other food.

BLEEDING.

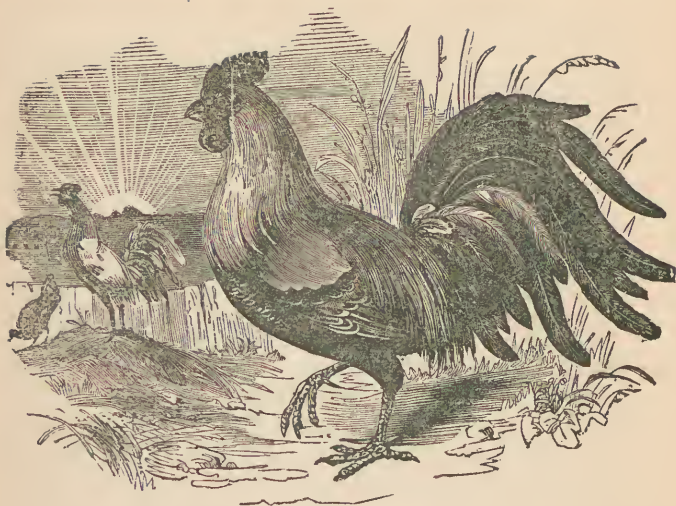
Most of the diseases to which swine are subject, will yield to mild treatment ; but where the attack is violent, and nothing else will avail, it will be necessary to confine the animal, and bleed from an artery just above the knee, on the inside of the forearm, or from the roof of the mouth. It is somewhat difficult to stop the blood where the mouth is lanced, but it can usually be done by partly filling the mouth with dry bran. Where a vein is cut, the bleeding can be stanchd by inserting a pin through the vein and tying a thread around it.

PREVENTING SWINE FROM ROOTING.

Take the pig when young, and cut off the gristle on the top of the snout ; apply a little tar, and it will soon heal.

POULTRY.

There are many ways in which poultry may be rendered more valuable to the husbandman than is generally supposed. The keeping of domestic fowls not only occupies much of the attention, and calls forth many of the kindlier feelings of children, assisting also to while away many an idle hour, but, if properly attended to, they will yield a larger profit, in proportion to the food they consume, than any other stock raised on a farm. It is estimated that the value of poultry produced in the United States, in 1847, was \$35,000,000.



HENS.

The hen is the most highly prized of all of the domestic tribes. There are many species of this fowl, each having its peculiar excellences, and being more or less productive, making it difficult to recommend any of them above the others. Hens properly kept, will pay three or four times their first cost and feeding yearly.

FOOD.

Hens can be kept on almost any kind of grain or roots, though they thrive best where they are allowed a variety of food. They will eat freely corn, oats, barley, buckwheat, or boiled potatoes, and green turnips. They likewise will devour green cabbage, lettuce, clover, chickweed, plantain, &c. They, however, prefer corn to all other kinds of food. While permitted to range the fields, they will obtain sufficient animal food by devouring insects, but in winter they should have, once a fortnight, a small quantity of fresh meat, chopped fine. It is generally supposed that hens do not produce eggs as rapidly in winter as at other seasons; but if proper attention be shown them, the difference will be scarcely perceptible. Corn, either boiled or ground, is the most natural food for them; yet they require some lighter food, such as apples, boiled potatoes, turnips, and other roots. It would be well to give them frequently

oats, rye, buckwheat, or bran. They should in winter have access to the ground, or have a quantity of gravel within reach, as without the aid of gravel-stones, digestion can not be carried on. Where hens are high-fed, and precluded access to the ground, for a length of time, to prevent their eggs being produced without shells, a small quantity of slaked lime, pounded oyster-shells, or ashes and salt, should be given them, with fresh water daily. During the cold season warm food should be allowed them.

HEN-HOUSE.

It is usual for some farmers to allow their hens to roost in trees, or in the barn, during the warm season of the year. This can not always be avoided, yet if a little timely expense were incurred in building a house for them, it would result in much greater benefit than is generally supposed. No reflecting man will long allow his flock of hens to occupy a barn well filled with all kinds of unthrashed grain. The house can be constructed in a great variety of ways, according to the wishes of the owner. It should be built on perfectly dry ground, in a warm location, without any floor, well lighted with glass windows, so arranged that they can be opened and shut at pleasure; the entrance about three feet from the ground, by means of a plank 10 feet long, one end of which resting upon a stone placed upon the ground, and the other end connecting with the opening. Around the sides of the house separate boxes, 15 inches square and 10 inches deep can be placed, in tiers, one above another, with the openings so arranged that they will not face each other, as the hen, while sitting, wishes to be undisturbed. In the boxes place hay and straw for a nest, having a sufficient number of them to prevent the hens from trespassing upon each other. In severe storms, close the windows, leaving openings for ventilation.

BREEDING.

The hen usually selects a retired place for her nest, and frequently produces a brood of chickens at the commencement of winter, when they are nearly worthless. It can be known when she is sitting (as it is termed) by a noise peculiar to her at that *season*. If it is desirable to prevent her from sitting, she can be watched closely for a short time, as she will not remain long from her nest, and her place of concealment can be found, the eggs removed, and the nest so thoroughly destroyed that she will not return to it. Hens require a warm, dry, and secluded place for their nests, and will generally hatch all of their eggs. There may be a difference of from 12 to 24 hours in the time of the hatching of the brood; in that case it may be necessary to remove those first hatched, to prevent

them from wandering from the others as well as to prevent the hen leaving the nest too soon.

DISEASES OF HENS.

Hens are liable to but few diseases, and these, by a little attention, are easily prevented or cured.

GAPES OR PIP

Is caused by drinking unwholesome water, or by long confinement.

Remedy.—Remove the scab, or white blister, from the tongue, and apply salt and vinegar, and give some oily substance with their food. Spirits of turpentine, and ginger, mixed with their food, is a preventive.

ROUP, CROUP, AND CATARRH.

The symptoms are swelling of the head, thirst, inflamed and swelled eyelids, difficulty of swallowing, loss of appetite, and an offensive watery discharge from the mouth. These diseases are produced by long confinement, impure air, or unwholesome food.

Remedy.—Put them in a warm place, bathe their heads in warm, weak soap-suds, or warm new milk, giving them a small quantity of ginger, mustard, or pepper, mixed with their food. Should they refuse to eat, it should be forced down their throats. A small quantity of pulverized charcoal, mixed with corn-meal will sometimes effect a cure.

COSTIVENESS.

Remedy.—Mix lard, castor-oil, or honey, with their food, or dissolve a teaspoonful of Epsom salts in 1 quart of water, in which soak oats or corn, and give to the fowl.

FLUX, OR LOOSENESS.

Remedy.—Take 10 drops of laudanum and $\frac{1}{2}$ a pint of water, in which soak oats or corn, and give the hen. Or, take the yolk of an egg boiled hard, cut up fine, and give with food. Or, give a small quantity of lard and pulverized charcoal.

LICE.

These are destroyed by placing ashes and sand for the hen to wallow in, and by putting a little sulphur in their food. Or, immerse them in a weak decoction of tobacco-water, or sprinkle snuff over their bodies.

GEESE.

These are not as profitable as some other fowls, yet if they are permitted to range on commons and unoccupied lands, they will yield a fair return for the capital invested. They will

thrive on most kinds of grain, potatoes, and turnips. A warm, dry, and secluded place, is required for their nests. They need much the same management as the hen while rearing their young. The general principles regarding the symptoms and cure of diseases to which hens are subject will apply to geese and turkeys with but little variation. It is said that geese will thrive well on raw turnips cut fine, and put into a trough with water. It can hardly be necessary to say that this is a *water-fowl*, and consequently requires pure running water. If the goose is full size and well fed, it will yield about $1\frac{1}{4}$ lb. feathers during the season. It is not merciful or profitable to pluck them so late in the fall that winter overtakes them without any covering. While fattening they require some kind of green food, such as clover, cabbage-leaves, lettuce, &c.

TURKEYS.

We have no account of the existence of this bird previous to the discovery of the western hemisphere. They were then found in immense numbers in their wild state. They have, like the savage, gradually disappeared as the white man's axe has levelled the forests. Wild turkeys are not at present found in any considerable numbers east of the Allegany ridge; they are, however, domesticated in all sections of this continent, and with proper attention they are rendered a valuable fowl for market. Turkeys require much the same care and management while rearing their young as other fowls, only the hen-turkey requires to be confined for a few days after the brood is hatched, as her propensities for rambling are such that her young will not have sufficient strength to follow her. This fowl is subject to but few diseases, the worst of which is a kind of dropsy in the crop. The symptoms are loss of appetite, trembling, and swelling of the crop. Give them a small quantity of pepper and ginger, with light food, every morning. If this should not soon produce relief, make a small incision with a lancet, in the lower part of the crop, when a watery substance will be discharged. It can be sewed up carefully. Feed lightly for one week.

DUCKS.

These do not require as much attention as others of the fowl tribe. They are peculiarly fond of meat, fish, insects, worms, and young frogs. They need fresh, pure, running water, and are not particular where they drop their eggs, which they produce in large quantities. They can be fattened rapidly on all kinds of grain. Ducks are subject to but few complaints, and these soon yield to the same treatment as is bestowed upon other fowls. It is considered the most profitable to set the

eggs of ducks under hens, as they will faithfully rear a family not really their own.

DOVES, OR PIGEONS, .

Require a high, airy situation, on the south side of the barn, if possible, with their house perfectly tight from within, that they may not be disturbed by rats, &c. Their presence around the farm-house is very pleasing, more especially to the young. It reminds the older members of the family of their youthful days and joyous pleasures.

The Guinea-hen and the peacock are so seldom raised in this country, that it is not deemed important particularly to notice them in this work.

CANARY AND OTHER BIRDS

Require their cages to be frequently washed, and white-washed on the inside. Their food consists of different kinds of seeds, such as hemp-seed, canary-seed, and others. Give occasionally stale bread or crackers, with a small quantity of corn-meal. Change their water daily, and keep a supply of charcoal, sand, gravel, ashes, or lime, and cuttle-fish bone, always in their cages.

THE DOG.

A SINGLE dog on a large farm may be of some service, and a few remarks respecting the two or three diseases to which he is subject, with directions for their proper treatment, may be of practical benefit. Among the various breeds, the cattle or shepherd's dog is the most valuable for the purposes of the farm. He is easily learned, very active, and his sagacity is truly wonderful. By proper training, which is easily accomplished, he will go after the cows to any part of the farm, and bring them into the yard as well as a boy. In brief, he can be taught to do all that can be required of a dog.

COLD.

The dog is frequently attacked with a cold, which shows itself by a discharge from the nose. Give warm purgative drinks, keeping him from exposure to severe weather for two days. Should the cold be attended with a cough, give a small quantity of sulphur and Epsom salts followed by light food for two days.

PURGATIVE DRINK FOR DOGS.

Take 1 scruple jalap, 1 dram aloes, 10 grains ginger, 1 gill molasses; mix, and give at one dose.

DOG DISTEMPER.

Symptoms.—Inaction, eyes inflamed, drowsiness, and loss of appetite.

Remedy.—Give $\frac{1}{4}$ oz. laudanum with 5 grains tartar emetic.

DOG-AIL.

Symptoms.—Inflamed eyes, loss of appetite, stupidity, fever, running at the nose, great thirst, wheezing, and sometimes dizziness.

Remedy.—Give strong salt and water, lukewarm, until it produces vomiting, then give a small dose of sulphur or Epsom salts, and feed on dry food for two days.

RABIES, OR MADNESS.

Symptoms.—The symptoms manifest themselves so gradually that the disease makes considerable progress before the alarm is taken. At first the animal manifests a slight uneasiness, going from place to place, often lying down and rising up again, wildness of the eyes, often gazing fiercely at man and beast. As the symptoms increase, his appetite fails, yet often taking food into his mouth, and dropping it again, with occasional vomiting. After this the animal becomes impatient, foaming at the mouth, eyes glaring and inflamed, biting everything within his reach, loathing water, and unnatural barking or howling. All these terrible symptoms continue to rage until the animal expires.

Too much caution can not be taken in every stage of the disease, that the dog be not permitted to lick the hand, for should there be a crack or injury, and the saliva from his mouth come in contact with the broken skin, the poison will surely be communicated. When a dog is bitten it is not safe to let him remain at large, as no calculation can be made how soon the poison will develop itself.

Treatment.—When an individual is bitten by a dog, a physician or surgeon should immediately be called, yet not a moment should be lost in cutting away every part of the flesh that has been touched by the teeth. Should the knife enter the wound while cutting, it must be thoroughly cleaned before continuing the operation, as there is great danger of extending the poison. After the operation of cutting is completed, wash the wound with chloride of lime, mixed with water, every 2 hours, for 30 hours, keeping on bandages for several days.

Another: The first step should be the application of a tight ligature above the wound; 2dly, the speedy and complete excision of the wounded part; and 3dly, the long-continued affusion of an alkaline solution, as pearlash in water, over the excised parts. The wound should afterward be dressed with Spanish flies, in order that a discharge may be kept up for a considerable length of time. Where it is impossible to cut out the flesh around the wound, make a solution of pure potash, or apply, with a pencil, lunar caustic (nitrate of silver). Nitric acid is applied, by some, as the safest means of preventing the evil consequences arising from the bite of rabid animals, but it is not always attended with success, even when taken in its earliest stages.

APPENDIX.

THE BEE.

PROVIDENCE, who delights in exhibiting beneficence as well as beauty all over creation, has wisely formed the bee as an humble, but active and untiring, agent in gathering up for the most important purposes, and converting to the most valuable uses, the scraps and fragments of nature which would otherwise be scattered by the "viewless winds," and spread through the "ambient air." He has adorned the song of the poet, pointed the tale of the moralist, and furnished food to the hungry in the desert. Virgil calls the bee a ray of divinity; Plutarch pronounces her a magazine of virtues; Quintian asserts that she is the greatest of geometricians; and Watts has pointed to her industry as an example to interest, improve, and delight the youthful mind. Philosophy has stooped to examine her habits, and to watch over her haunts; she has presented the models of science, and called forth the attention of scientific men; by her the husbandman, when sitting in his cottage garden, is soothed in his evening reflections on his day of toil; and in whatever light she may be viewed, there is none who can declare that he has no interest in her ways.

CONSTRUCTION OF A BEE-HIVE.

It is important that a bee-hive should be made of well-seasoned boards, free from shakes and cracks; it should be planed very smooth, both inside and out; joined as near as possible, to make it air-tight; and painted white on the outside. Glass hives are being introduced into various parts of the country, and it is probable that they will soon come into very general

use. Hives of the medium size have been found best adapted to the purpose for which they are designed.

IMPROVED MACHINE FOR FEEDING BEES.

Prepare a board, a little larger than the bottom of the hive, in the centre of which make an opening about 10 inches in diameter; then form a frame of half-inch board, to consist of four sides, each about 3 by 12 inches; make the angles firm with small wooden blocks, to which affix the before-mentioned board. A door should then be made in a side of the frame, sufficiently large to admit a deep plate, or small dish, to contain the food. By the use of this machine, the bees are fed quietly, and protected from the cold weather, and the intrusion of other bees. It is scarcely necessary to observe further, that the door of the machine should face such part of the bee-house as best suits convenience. The dish of food to be placed under should be covered with a piece of thick paper the size of the plate or dish, pierced with holes, through which the bees will feed; and a quantity of short pieces of straw also put into the dish, will prevent the bees from daubing themselves. They should be fed at night, and the dish only taken away early on the following morning; to do this, the face and hands should be covered. The autumn and early part of the spring are times proper to examine if any hives require feeding; but always commence before the stock is in absolute want of food, or the bees will be so poor and weak as to be unable to come down.

TO HIVE BEES.

Bee-keepers should have spare hives by them, prepared to hive the bees as soon as they are settled; for should the sun shine hot on the swarm, it may take another and be lost. The manner of hiving them must be regulated by the nature of the place on which they settle. Have ready a cloth whereon to place the hive, and a wedge to raise it; if the swarm should settle on a limb of a tree, shake the best part of it into the hive, place it on the cloth on the ground, and continue to disturb where it settled, and the hive being left underneath, they will all go in: or cut off the branch, and gently place it in the live. should the bees settle on the ground, place the hive over them; and though bees are not apt to sting at this time, the hiving should be performed quietly. Avoid taking and breathing on them. If any of them are crushed they will resent it; therefore, to prevent accident, use a bee-dress, or a veil and gloves. All swarms are to be sheltered, and left near to where they settle till the evening; thence to be removed very gently to the appointed place.

TO TAKE THE HONEY WITHOUT DESTROYING THE BEES.

In the dusk of the evening, when the bees are quietly lodged, silently approach the hive and turn it gently over. Having steadily placed it on the ground, with its bottom upward, cover it with a clean new hive which has been properly prepared with a few sticks across the inside of it, and rubbed with aromatic herbs. Having carefully adjusted the mouths of the hives to each other, so that no aperture remains between them, take a small stick and beat gently round the sides of the lower hive for about fifteen minutes, in which time the bees will leave their cells in the lower hive, and ascend and adhere to the upper one. Then gently lift the new hive, and place it on the stand from which the other hive was taken. This should be done by the 15th of July, that the bees may have time, before the summer-flowers are faded, to lay in a new stock of honey, which they will not fail to do for their sustenance through the winter.

TO DESTROY THE BEE-MILLER.

To a pint of water sweetened with honey or sugar, add $\frac{1}{2}$ a gill of vinegar, and set it in an open white vessel (as anything white attracts their attention), on the top or by the side of the hive. When the miller comes in the night, he will fly into the mixture and be drowned.

PRESERVING OLD HIVES.

When bees die, the hive should be thoroughly cleared of its contents, the sides well scraped out and rubbed with a cloth wet in cold water, and be kept in a dry place until wanted for use. Old hives thus prepared, are far better than new ones, from the fact that the arduous and difficult task of attaching the *comb* to the walls of the hive has been accomplished by the previous swarm.

WINTER MANAGEMENT.

When autumn approaches, it is highly important to know the exact condition of the bees, in regard to their supply of food for the winter, and if all the hives be made of the same size and weight, after a little practice the quantity of honey contained in each can be readily ascertained by gently weighing it. There should be found 15 or 20 pounds of honey in every hive, of the usual quantity of bees, to carry them safely through the winter. When the quantity of honey is insufficient, the bees can be fed as before described. Southern honey that costs from 4 to 6 cents per pound, will answer the purpose. Where honey can not be obtained, brown sugar can be used. Dissolve the sugar with a sufficient quantity of water

to make it of the consistence of honey. This must be done over a fire, and taken off as soon as it commences boiling, and the scum taken off. It is of great importance so to place bees that they will have the least possible desire to leave their hives during the winter. If two stocks should be placed side by side, and the one so managed that the bees should remain within constantly, without being confined, while those of the other should be on the wing during every tolerably warm day, the mortality of the bees remaining within would not be half so great as that of the others; for the reason, that many bees come to an untimely death in the winter season, by being suddenly chilled while abroad, and never regain the hive. Hives thus depopulated can not possibly thrive so well in the following spring, as those which are kept from going abroad; hence it follows, that to be successful we must ascertain in season whether a sufficient amount of food is furnished them to carry them through the winter season.

SPRING MANAGEMENT.

The queen commences her spring laying on the approach of mild weather, in March or April. Even in February, should there be two or three weeks of warm weather, she may commence her spring-laying. The indications of this are, the activity of the bees in going abroad, and their return loaded with pellets of pollen upon their thighs. The latter is a sure indication. Should this be the case as early as the month of February, in the latitude of New York, the bees will be placed in a very critical situation; for cold weather must, as a matter of course, intervene before the approach of mild settled weather. Under such circumstances, should the weather continue mild, the bees will consume more honey in a week than during a month of steady cold weather; and if their supply be not abundant, feeding in the general way as before described, should be resorted to. In any case when the spring opens prematurely, the greatest care is necessary, for the reason that if the bees are on short allowance, their destruction is inevitable, unless they are fed. Should the bees be placed in any situation cooler than that which is intended for them in the summer, such as on the north side of some building (which is a good plan in a mild winter), they should be kept in that position till permanent mild weather; but care should be taken not to leave them too long, as their spring increase might be greatly retarded thereby. The great object of every one should, at this season, be to get early swarms. One swarm in May is worth two in June. Bees usually swarm from the 10th of May to the 10th of June.

TO CULTIVATE BEE-FLOWERS.

Bees are most fond of those places where their favorite flowers are found; therefore bee-keepers should encourage the growth of such shrubs and flowers as are known to supply honey and wax in the greatest abundance. In most situations bees do not fly far for food—generally not more than half a mile; they may be observed to return with great precipitation to the hive, as the storm approaches. The following are the most favorable for pasturage, and those which blossom early are the most desirable:—

Shrubs.

Sallow, or the gray willow,
Rosemary,
Barberry-tree,
Gooseberry-tree,
Raspberry-tree,
Apricot, and other fruit-trees,
Lime-trees,
Furze,
Broom,
Heath.

Flowers.

Lemon-thyme,
White clover,
Garden and wild thyme,
Barage,
Winter-savoy,
Hyssop,
Mustard,
Turnip,
Cabbage,
Scarlet and other beans when
in bloom,

TO MANAGE BEES GENERALLY.

The best situation for bees is to the north. The stations for the hives must be six yards asunder, and never nearer than three yards. The board on which they are placed ought to be of one piece; or if joined, the under side of the joining should be lined with a thinner board, fixed closely with wooden pins. The edges of this rounded standard should project four inches all round the hive. Place it on three wooden pillars sixteen inches above the ground, but six inches should be firmly thrust into the earth. The pillar in front should be an inch shorter than the others, and three pillars should be within twelve or fourteen inches of the outer edge of the board, to exclude rats and mice. For the same reason, no tall-growing plant, no wall, nor any means of ascent, should be within three or four feet of the hive. In fine weather, the entrance to the hive must be five inches long and an inch and a half in depth. In the beginning of the fine season, when the bees can get food, or have stores remaining, the bee-master has nothing to do but to keep the ground about the hives clear from weeds, and from whatever might enable vermin to climb there. Yet, as a thriving stock inclines very soon to swarm, the hives must be frequently looked after, from eight in the morning till three in the afternoon. The symptoms are generally these: the little city seems crowded with inhabitants; they are in continual motion

during the day ; and after working-time they make loud noises. The drones may be seen flying about in the heat of the day, and the working bees go with a reeling motion and busy hum. When the bees come regularly out of the hives, let no noise, no interruption, incommode them ; but if they fly long, as if they were unsettled, some tinkling noise, or the loud report of a gun, will make the fugitives repair to the nearest lodging. If there is an empty hive with combs and some honey in it, they will readily go there. If a new hive is used, remember to smooth it well within. Perpendicular sticks should never be employed. Four cross-sticks, at equal distances, will support the combs. It is to be observed, that great haste in forcing a swarm into the hive, may disperse them. Give them time to settle undisturbed, though keep a steady eye on their motions ; but when they gather into a cluster, lose no time in placing the hive over them. If the hive rests on anything that can be brought to the ground, spread a clean linen cloth ; lay two sticks on it, two feet asunder ; lay the body on which the swarm have fixed, gently on the sticks, covering it with the hive by a motion the least perceptible, and taking care that the edges of the hive rest upon the sticks. Cover hive and all with a cloth, for the heat of the sun may cause them to rise again. When they have gone into the hive, cover it with its own board, and carry it cautiously to its station. Great care should be taken that the ground around and under the hives should be kept free from weeds and grass. A hard, smooth surface is best, as many a weary bee, on returning home, fails in reaching the alighting board, and falls to the ground, in which case, should the ground be encumbered with long grass, and weeds, she might become entangled, and thus fall a prey to spiders that infest such places. The best way to kill the grass and weeds, is to saturate them in the spring with boiling-hot brine, which will effectually put a stop to vegetation. This being done, lay a strip of board along in front of the hives, with a rising point for the bees that return home heavily laden, and fall around the hives, which often does occur, and they fail to get upon the wing until they ascend some eminence from which they take a start and regain the hive.

TO PURIFY HONEY.

Expose the honey to frost for three weeks, in a place where neither sun nor snow can reach it, and in a vessel of wood, or other substance which is not a good conductor of heat. The honey is not congealed, but becomes clear.

CHOICE FRUITS.

A FARMER finds no little difficulty, and perplexity in making his selection of fruit-trees from a nursery of many hundred kinds. To avoid this difficulty, the writer proposes to give a short description of a few varieties that will give general satisfaction, but our limited room will not permit us to mention a large number.

APPLES.

Early Harvest.—Fruit medium size, bright straw-color, flavor fine—ripe in August.

Summer Queen.—Fruit large and oblong, striped with red and yellow; high flavor, and very fine—ripe in August.

Rhode Island Greening.—Fruit large, skin greenish, flesh slightly acid, and of fine flavor—keeps till May.

Swaar Apple.—A celebrated winter fruit, in some parts of New England and New York; of fine flavor, skin greenish yellow, with red tinge—keeps till March.

Newtown Pippin.—A valuable apple of two kinds, the yellow and the green; no difference in quality; keeps till June and retains its flavor; the best fruit for pies and general family use.

Fall Pippin.—This is the most valuable of all fall apples. Fruit large and oblong; skin smooth and greenish, slightly tinged with orange; flesh tender and mild—ripe in October, and keeps till February.

Baldwin Apples.—In many markets in the United States, this kind of fruit commands the highest price: color bright red, tinged with yellow; flesh sweet, rich, and juicy—ripe in November, and keeps till spring.

Lady Apple.—Fruit small, color bright, deeply tinged with red on one side; flesh brittle and pleasant—ripe in November, and keeps till May.

PEACHES.

Yellow Rareripe.—Skin red and yellow, flesh rich and delicious—ripe in September.

Morris Red.—Fruit large, skin greenish yellow—ripe in September.

Columbia.—Fruit medium size, skin rougher, color a dark reddish, flesh yellow—ripe in September.

Morris White.—Fruit large, skin yellowish, flesh white; flavor rich; valuable for preserves; ripe in September.

PEARS.

Dearbon's Seedling.—Medium size—ripe in August.

Bloodgood.—A large fruit, with russet spots—ripe in August.

Steven's Genesee Pear.—Of large size, color light green—ripe in August.

Pound Pear.—Fruit large; excellent for winter.

Seckle.—This is considered by many one of the best pears in the country, color brownish, slightly russet-tinged, with red next the sun; flavor very rich—ripe in September.

Marie Louisa.—A fine pear, skin yellowish green, darkish russet, flesh rich and mellow—ripe in October.

CHERRIES.

May-Duke.—Fine and round; grows in clusters. skin dark red; flesh rich and juicy—ripe in June.

Ox-Heart.—Fruit large, and heart-shaped; color pale yellow; an excellent quality—ripe in June.

Black Ox-Heart.—Fruit large, fine, and delicious—ripe in July

PLUMS.

Orange Egg.—A large, beautiful fruit—ripe in August.

American Yellow.—Beautiful shape, color bright yellow—ripe in August.

Green Gage.—So well known that a description is unnecessary, it is the most desirable plum known—ripe in August.

Blue Magnum Bonum.—Size large, color blue; excellent cooking—ripe in September.

Fall Gage.—A valuable fruit, good when the season is past for other plums—ripe in October.

AGRICULTURAL SOCIETIES AND FAIRS.

The great benefits arising from agricultural societies are now duly appreciated by the large portion of American farmers, but every succeeding year produces a change in the agricultural public. Through the benefits of associations, stock has been improved and their diseases guarded against; the quality of nearly all sorts of grain has become superior, and the quantity increased; barren and sterile lands have become fertile, and swamps that were once valueless have been drained and changed to luxuriant gardens; in short, mankind have been benefited by their effects. The great improvement that has taken place in agriculture and the breeding of stock throughout England and America within the last fifty years, is owing mainly to an interchange of knowledge and experimenting thereon. State agricultural societies have been formed in nearly every portion of the Union, and county societies, already numerous, are on the increase. Many agricultural papers are now published in our country, diffusing a vast amount of knowledge which is obtained at a comparatively low price. Individuals who feel the importance of becoming members of agricultural societies and patronizing the press, by subscribing to and reading some one of the many papers that are now published on the subject, will soon feel and appreciate the benefits of being in possession of the experience of others. The premiums offered to those who excel in productions from their farms and work-shops, are not the only incentives to improvement; the meeting together once a year, at the annual fair of the state and county societies, of so large a number of farmers, mechanics, and artisans, and there beholding their products, incites in them a spirit of emulation and rivalry which nothing else would produce, the result of which is apparent in communities where the most attention has been paid to the subject. The above are only a few suggestions in relation to a subject which will more or less interest every reader of this little book and should the hints herein expressed meet the approbation of the class for which it is designed it will be no little satisfaction to the writer.

THE END.





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